

AMANO®

AMANO  
**MJR-8150** *SERIES*

**RAW DATA COLLECTION TERMINAL**

PROGRAM/USER'S MANUAL

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**\* OVERVIEW - RAW DATA COLLECTION TERMINAL**

This section details how to set up the MJR-8150 as a raw data collection terminal. By enabling the raw data feature, the clock will store individual IN punches and OUT punches along with a one digit code for punch classification, a one digit function code number and up to a six digit cost center number. This raw data can then be transferred back to an Amano Time and Attendance PC software package or your own in-house software package for processing.

Amano's Time and Attendance PC Software allows more flexibility in setting up your company policies and pay rules. You can compare individual punches to scheduled times to track and report exceptions, make corrections at the PC to add missed punches and also correct total hours worked. In addition, a variety of labor management reports can be generated and the payroll data can be transferred to a payroll service or other payroll software packages.

**\* FEATURES****1. EMPLOYEE CAPACITY**

The employee capacity remains the same at 250 employees. The standard MJR-8100 time card assignment methods will still apply. (Refer to pages P8 - P12 of the MJR-8100 Program Manual.)

The three digit file number (000 - 249) and the two digit clock number (01 - 31) will be recorded in the raw data text in defined fields for identifying the employee information. In addition, a clock control code will be set up in the Raw Data Collection Programming Area.

Clock Control Code: This control code will match the hole that is punched in the fourth row (from the bottom) of the time card. It is used to differentiate the same time card numbers that may be assigned to different employees on different clocks. The MJR-8150 will check to make sure that the hole punched in the fourth row from the bottom matches the Clock Control Code before accepting the time card and processing the punch.

For example:

Suppose there are two time clocks within the same location. Clock number 01 uses time card numbers 000-099 and Clock number 02 uses the same time card numbers 000-099.

The time cards used for Clock 01 will already have the zero (0) hole punched in the fourth row of the time card. The Clock Control Code set up in the Raw Data Collection Programming Area will also be zero (0).

The time cards used for Clock 02 will also have the zero (0) hole punched in the fourth row of the time card. But in addition, each time card used for clock 02 will have to have a different hole number hand punched. If you hand punched the two (2) in the fourth row of each time card, then the Clock Control Code set up in the Data Collection Programming Area will also be two (2).

Now, the employees assigned to Clock 01 will NOT be able to punch or OUT on Clock 02 and vice versa.

\* FEATURES

2. CARD PRINTING FORMAT - There are four printing formats in which you can choose.

a) Print IN punches, OUT punches AND accumulated hours.

Date	Day	No	IN	OUT	HOURS WORKED	ACC. HOURS	ACC. OT.
29	MO	0	08:00	12:00	04:00	04:00	
29	MO	0	12:30	17:00	08:30	08:00	00:30

b) Print IN punches, OUT punches AND accumulated hours with function keys activated and cost center printing activated.

Date	Day	No	IN	OUT	HOURS WORKED	ACC. HOURS	ACC. OT.
29	MO	0	08:00	10:00	02:00 000000	02:00	
x... 29	... MO	... 0	... 10:00	... .....	... .....	... .....	... .....
					123456		

c) Print IN punches and OUT punches ONLY.

Date	Day	No	IN	OUT	HOURS WORKED	ACC. HOURS	ACC. OT.
25	MO	0	08:00	12:00			
25	MO	0	12:30	17:00			

d) Print IN punches and OUT punches with function keys activated and cost center printing activated.

Date	Day	No	IN	OUT	HOURS WORKED	ACC. HOURS	ACC. OT.
29	MO	0	08:00	10:00	000000		
29	MO	0	10:00	11:15	123456		
29	MO	1	11:45	12:00	654321		

**\* FEATURES**

3. DATA ENTRY - There are two types of data entry.

a) FUNCTION CODE ENTRY:

When activated, each employee can enter a function code prior to punching IN or punching OUT by pressing one of the roman numeral keys on the keypad (I, II, III, IV). The corresponding code number (1, 2, 3, 4) will print in the 'NO.' column on the time card (for IN punches only) while recording the selected code in the raw data text in a defined field. If a roman numeral key is not pressed then a zero (0) will print in the 'NO.' column on the time card and be recorded in the raw data text.

When one of the roman numeral keys is pressed, the screen will display a I, II, III or IV in the lower left hand corner for five seconds to allow for verification.

b) COST CENTER NUMBER ENTRY:

Each employee can enter up to a six digit cost center number prior to punching IN or punching OUT. There is a choice available to either print or not print the cost center number on the time card.

1. BEFORE THE IN PUNCH:

- a. If printing is selected, the cost center number entered will print in the hours worked column and the raw data transaction will contain a '4' in the punch classification code along with the cost center number
- b. If printing is not selected, the raw data transaction will contain a '4' in the punch classification code along with the cost center number.

2. BEFORE AN OUT PUNCH:

- a. If printing is selected, two punches will be created. The first punch will print in the OUT column on the card but will NOT be saved in the buffer. The second punch will print in the IN column on the next line and the cost center number will print in the HOURS WORKED COLUMN on the card. The raw data string will contain '4' in the punch classification code along with the cost center number entered.

\* FEATURES

- b. If printing is not selected, the two punches will still be created. The first punch will print in the OUT column on the card but will NOT be saved in the buffer. The second punch will print in the IN column on the next line. The raw data string will contain a '4' in the punch classification code along with the cost center number entered.
- 3. If a cost center number is not entered then all zeroes (000000) will print on the card and zeroes will be recorded in the raw data text in a defined field.

4. COMMUNICATION BUFFER CAPACITY

The MJR-8150 Raw Data Collection Terminal has a raw data text buffer capacity of 2,500 transaction records (punches). Data is stored and transmitted by the FIFO method (First-In, First-out) with no limitation on the total number of transaction records (punches) for each individual employee.

When the transaction records are polled by a host computer, they will be marked so that they will not be re-transmitted during the next polling. When the buffer contains 2,500 transaction records that have NOT been previously transmitted, a BUFFER FULL condition will occur.

**BUFFER FULL** - If the buffer is full when the employee time card is inserted, the punch will be printed in red followed by an 'F' to indicate that the buffer was FULL and the transaction was NOT stored in the buffer. The time clock should be polled immediately to clear the buffer so that additional punches will not be lost.

**\*\*NOTE:** Punches that are not stored in the buffer will have to be manually entered into your PC time and attendance software.

D a t e	D a y	N o	IN	OUT	HOURS WORKED	ACC. HOURS	ACC. OT.
25	FR	1	08:00	12:00F	04:00	04:00	

red  
print

**\* SPECIFICATIONS**

**RAW DATA TEXT FORMAT**

3 1	Data Classification: 31 ..... IN/OUT Data [Fixed]
1 9 9 1	Transaction Year
1 2	Transaction Month
2 8	Transaction Date
2 1 5 7	Transaction Time: Military Format [0000 - 2359]
4	Function Code [0 = No function key pressed, 1 = Function Key [I] pressed, 2 = Function Key [II] pressed, 3 = Function Key [III] pressed, 4 = Function Key [IV] pressed, 5 = Paid Break Key [#] pressed. ]
1	IN/OUT Punch Data [1 = First IN, 2 = OUT, 4 = IN ]
0 0 0	Not Used [000]
0 1	Clock Number [01 - 31]
2 4 9	File Number [000 - 249]
1 2 3 4 5 6	Cost Center Number [000000 - 999999]
	Not Used [Space]

## \* PROGRAM SETUP PROCEDURE

This part of the manual contains a chart to guide you through the Program Setup Procedure. For each step, refer to the page number for detailed instructions on WHAT TO DO.

## RAW DATA COLLECTION TERMINAL PROGRAM SETUP CHART

STEP	WHAT TO DO	USER ACCESS CODE	PAGE
1	Follow Chart in Program Manual	-----	P 3
2	Raw Data Collection Programming	14 E	RP 8
3	Program Print Out	23 E	P 28

# PROGRAMMING GUIDE

## \* RAW DATA COLLECTION PROGRAMMING AREA

- To Enter Program Area - Turn The Key and Press **1 4 E**

- Enter the password **X X X X E**

PROGRAM ADDRESS NO.	SAMPLE PROGRAM DATA	PROGRAM CODES AND DESCRIPTIONS
14 1		Choice to Enable Raw Data Feature: 0 = Disable raw data feature (OFF) 1 = <u>Enable</u> raw data feature (ON)
2		Clock Control Code: Valid Hole Punch Numbers on Time Card are 0 - 9. [The hole punched in the fourth row (from the bottom) of the time card should match the number set up here for all time cards used for this clock.]
3		Choice to Print Accumulated Hours: 0 = <u>Do not</u> print accumulated hours 1 = Print accumulated hours
4		Cost Center Number Entry / Printing: 0 = <u>Do not</u> activate cost center number 1 = <u>Activate and do not</u> print cost center number 2 = Activate and print cost-center number
5		Function Code Entry: 0 = <u>Do not</u> activate function keys (I, II, III, IV) 1 = Activate function keys (I, II, III, IV)

**AFTER THE 'E' KEY IS PRESSED THE DISPLAY WILL GO BLANK AND THE DATA WILL BE AUTOMATICALLY SAVED IN MEMORY.**

- Turn key back to "NORMAL" mode

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\* DATA ENTRY - FUNCTION CODE ENTRY

The employee presses a roman numeral key before the IN punch or before the OUT punch to register a function code.

**FUNCTION CODE ENTRY**

Before the IN punch:

- Press a roman numeral key I, II, III, IV. The symbol will be displayed in the lower left hand corner on the screen.
- Insert the employee time card (within 5 seconds). The number 1, 2, 3, or 4 will print in the 'NO.' column on the time card.
- Remove the employee time card.

Before the OUT punch:

- Press a roman numeral key I, II, III, IV. The symbol will be displayed in the lower left hand corner on the screen.
- Insert the employee time card (within 5 seconds). The numbers 1, 2, 3, or 4 will NOT print on the card.
- Remove the employee time card.

## USER GUIDE

### \* DATA ENTRY - COST CENTER NUMBER ENTRY

The employee uses the numeric keypad before the IN punch or before the OUT punch to enter a six digit cost center number.

#### COST CENTER NUMBER ENTRY

##### Before the IN punch:

- Press **E**. Six zeroes (000000) appear on the display.
- Use the numeric keypad to enter up to 6 numbers.  
DO NOT PRESS THE 'E' key!
- Insert the employee time card (within 5 seconds). The cost center number will print in the hours worked column on the time card.
- Remove the employee time card.

##### Before the OUT punch:

- Press **E**. Six zeroes (000000) appear on the display.
- Use the numeric keypad to enter up to 6 numbers.  
DO NOT PRESS THE 'E' key!
- Insert the employee time card (within 5 seconds). The cost center number will print in the hours worked column on the time card.
- Remove the employee time card.

**\* DATA ENTRY - FUNCTION CODE AND COST CENTER NUMBER ENTRY**

The employee presses a roman numeral key before the IN punch or before the OUT punch to register a function code. The employee ALSO uses the numeric keypad before the IN punch or before the OUT punch to enter a six digit cost center number.

**FUNCTION CODE AND COST CENTER NUMBER ENTRY****Before the IN punch:**

- Press a roman numeral key I, II, III, IV. The symbol will be displayed in the lower left hand corner on the screen.
- Press **E** (within 5 seconds). Six zeroes (000000) appear on the display.
- Use the numeric keypad to enter up to 6 numbers.  
DO NOT PRESS THE 'E' key!
- Insert the employee time card (within 5 seconds). The number 1, 2, 3, or 4 will print in the 'NO.' column on the time card. The cost center number will print in the hours worked column on the time card.
- Remove the employee time card.

**Before the OUT punch:**

- Press a roman numeral key I, II, III, IV. The symbol will be displayed in the lower left hand corner on the screen.
- Press **E** (within 5 seconds). Six zeroes (000000) appear on the display.
- Use the numeric keypad to enter up to 6 numbers.  
DO NOT PRESS THE 'E' key!
- Insert the employee time card (within 5 seconds). The numbers 1, 2, 3, or 4 will NOT print on the card. The cost center number will print in the hours worked column on the time card.
- Remove the employee time card.

**\* DIAGNOSTICS - COMMUNICATION BUFFER**

The following User Access Code will allow you to check the number of new transaction records and previously transmitted transaction records in the communication buffer.

**9 3 E**

= Number of Transaction Records in the Communication Buffer.

- Turn the key to the right to access "FUNCTION" mode.
- Press '9 3 E'.

The four digit number displayed in step 1 is the number of new transaction records waiting to be polled.

- Press the '#' key to advance to the next step.

The four digit number displayed in step 2 is the total number of transaction records that were previously polled.

- Press the 'E' key. (The display will go blank.)
- Turn the key to the left to return to "NORMAL" mode.

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**\* INITIALIZATION - COMMUNICATION BUFFER**

The following User Access Code will initialize (clear) ALL transaction records in the communication buffer.

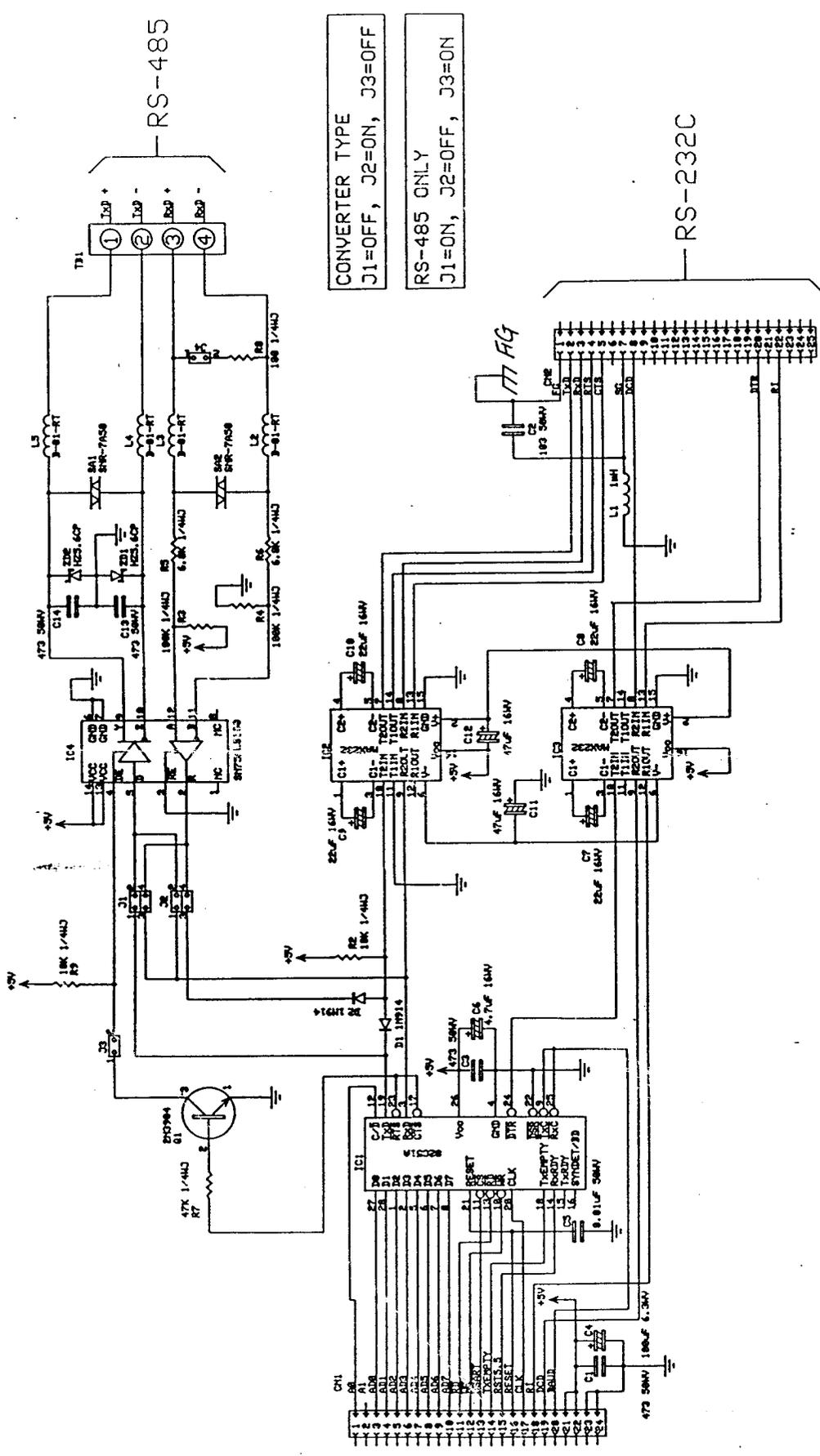
3	3	E	8	8	E	X	X	X	X	E
---	---	---	---	---	---	---	---	---	---	---

 = Initialize Communication Buffer

- Turn the key to the right to access "FUNCTION" mode.
- Press '3 3 E 8 8 E' followed by the user password number 'X X X X' and then press 'E'.
- The display screen will go blank.
- Turn the key to the left to return to "NORMAL" mode.

**ERROR CODES****\* MJR-8150 ERROR CODE LIST / SOLUTION**

ERROR CODE	REASON	SOLUTION
<div data-bbox="175 266 438 399" style="border: 1px solid black; padding: 5px; text-align: center;">0 - 01</div>	<ol style="list-style-type: none"><li>1) Inserted time card facing the wrong side.</li><li>2) Time card is filled with punches on one side.</li></ol>	<ol style="list-style-type: none"><li>1) Reinsert time card facing the correct side.</li><li>2) Reinsert time card on the next side.</li></ol>
<div data-bbox="175 525 431 658" style="border: 1px solid black; padding: 5px; text-align: center;">0 - 02</div>	<ol style="list-style-type: none"><li>1) The time card does not have enough room to print the IN punch along with the cost center number on the time card.</li><li>2) A different employee inserted their time card while the clock was waiting for the number of the time card displayed on the screen.</li></ol>	<ol style="list-style-type: none"><li>1) The time card number will appear on the screen along with the card symbol.  Reinsert the time card on the next side. NOTE: The cost center number DOES NOT have to be reentered.</li><li>2) Same solution as noted above.</li></ol>



CONVERTER TYPE  
 J1=OFF, J2=ON, J3=OFF  
 RS-485 ONLY  
 J1=ON, J2=OFF, J3=ON

TO MAIN  
 P.C.B.  
 ANJM

AMANO ELECTRONICS OF AMERICA INC.

SCALE	UNIT	PAGE	DATE	APPROVAL	DRIFT/SPK
-	-	1 of 1	OCT. 15 1991	BU	DRIFT/SPK CCH E-SEAF
CIRCUIT DIAGRAM SECTION					
MJR-8100		SERIES		DRAWING NO.	
NONSIGNATURE		RS-485/RS-E232C		AXI-001501	
REVISION		AMJ4-1B		PROTO NO. ATP-001071	