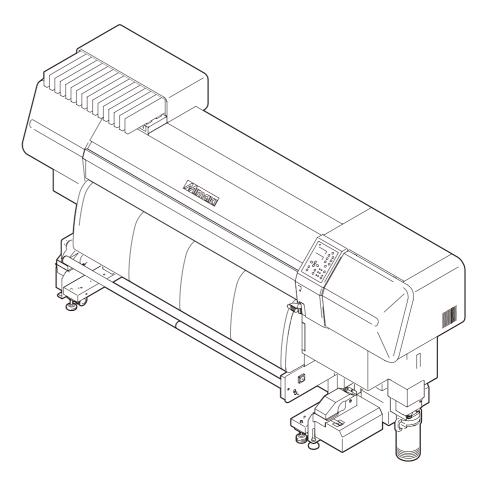


JV5-1505 JV5-1305

AMF Unit Installation Manual

Revision 1.0



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About this Installation Manual

This document is written for service engineers, and contains a set of installation procedures that are needed when fitting an AMF unit to a JV5-130S/160S inkjet printer.

During installation, perform work by referring to this document and the following related manuals.

Structure

This manual consists of the following chapters.

Chapter 1:Overview

Describes the tools that are used to install the AMF unit.

Chapter 2:Installation Procedure

Describes the procedure for installing the AMF unit.

Documents related to this unit

The following is a list of documents other than this manual that describe the JV5-130S/160S. Refer to these as necessary.

- Operation Manual (included with the product)
- Mechanical Drawing
- · Maintenance Manual

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Chapter 1 Overview



1-1. Tools Needed for Installation

The tools that are needed during the installation procedure are shown below.

Name	Comments	
Phillips-head screwdriver		
Hexagonal wrench	Across flats: 6.0, 5.0, 4.0 mm	
Spanner wrench	Across flats:19.0mm	
Protective glasses		
Wipe cloths (Bemcot, etc.)		
Gloves	For dirt prevention and safety	

1-2. List of items bundled together

The followings are the parts bundled together with AMF unit. Make sure to check that all parts are included when opening the package.

Name of parts	Take-up T bar base R ASSY	Take-up T bar plate L ASSY	Take-up T bar base L ASSY	Take-up T bar fixation BKT ASSY
Parts No.	M008014	M008015	M008016	M008017
Quantity	1	1	1	2
Name of parts	Feeding T bar base R ASSY	Feeding T bar plate L ASSY	Feeding T bar base L ASSY	Feeding device R AMF total assy
Parts No.	M008020	M008021	M008022	M008040
Quantity	1	1	1	1
Name of parts	Take-up device R AMF total assy	Feeding device L AMF total assy	Take-up device L AMF total assy	T bar auxiliary BKT R
Parts No.	M008041	M008042	M008043	M510111
Quantity	1	1	1	1

Name of parts	T bar auxiliary BKT L	Hanger BKT	Leg reinforcement plate R	Leg reinforcement plate L
Parts No.	M510112	M507414	M510017	M510016
Quantity	1	2	1	1
			THE TAX PORT OF THE PROPERTY O	
Name of parts	Take-up/feeding installation plate R	Take-up/feeding installation plate L	Waste tank base ASSY	Waste ink discharge tube
Parts No.	M206011	M206010	M008058	M905668
Quantity	1	1	1	1
			0	
Name of parts	Roll holder stopper RH	Roll holder stopper LH	Roll guide shaft spacer A	Waste tank harness cover
Parts No.	M008258	M008259	M206019	M510092
Quantity	1	1	1	1
Name of parts	Waste ink tube hang stay	Discharge tube stay	Discharge tube holder	Tube hold plate
Parts No.	M510046	M508559	M508560	M510049
Quantity	1	1	1	1
Name of parts	Tube joint ASSY	Waste tank sensor cable Assy	3 inch roll holder F	3 inch roll holder R
Parts No.	M008055	E105338	M602301	M602302
Quantity	1	1	4	4
Name of parts	Installation BKT A RH (for 130)	Installation BKT B RH (for 130)	Installation BKT A LH (for 130)	Installation BKT B LH (for 130)
Parts No.	M510307	M510308	M510309	M510310
Quantity	1	1	1	1
Name of parts	Roll holder AMF	Cable clip	Screw	Screw
Parts No.	M008277	UC — 1.5	P3 × 10SMW(白)	P4 × 12SMW
Quantity	1	2	4	47

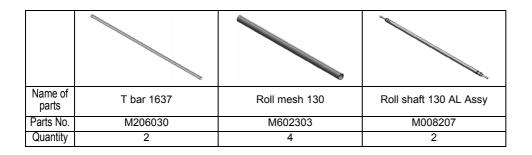


Name of				
parts	Hex bolt	Hex bolt	Hex bolt	Hexagon wrench (4mm)
Parts No.	CS5 × 10SMW	CS6 × 20	CS8 × 20	APL-04
Quantity	10	8	16	1
Name of parts	Hexagon wrench (5mm)	Hexagon wrench (6mm)	Installation manual (for English)	AMF Operation manual (for Japanese)
Parts No.	APL-05	APL-06	D500375	D201838-11
Quantity	1	1	1	1
Name of parts	AMF Operation manual (for English)			
Parts No.	D201839-11			
Quantity	1			

Bundled parts for JV5-160

Name of parts	T bar 1895	Roll mesh	Roll shaft 160 AL Assy
Parts No.	M206012	M602294	M008206
Quantity	2	4	2

Bundled parts for JV5-130



Chapter 2 Installation Procedure

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2-1. Installation Overview

This chapter describes the procedure for installing the JV5-130S/160S. Carefully read and understand this document and all related documents before beginning the installation work.

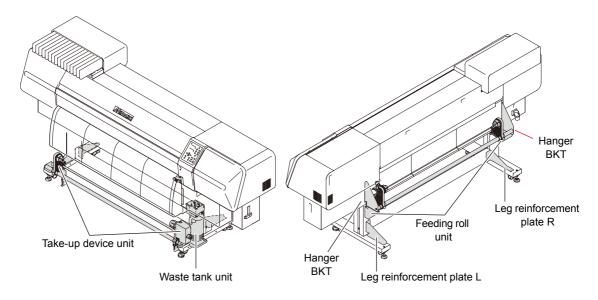
2-1-1. Warnings During Installation

Make sure that you fully understand all of the following warnings before beginning work.

- Always turn the main power switch (rear panel of the main unit) off prior to work unless otherwise directed to prevent electrical shocks and circuit damage during the work. (It is not sufficient to merely turn off the power switch on the front panel)
- Always wear gloves during assembly and disassembly work to prevent cutting injuries.
- When performing work, ensure that there is sufficient surrounding space and perform the installation in a stable location.
- Be very careful when handling this product as the product is extremely heavy.
- Only use the designated tools when carrying out work.
- Ensure the connections of each connector are securely and fully attached.

2-2. Installation Overview

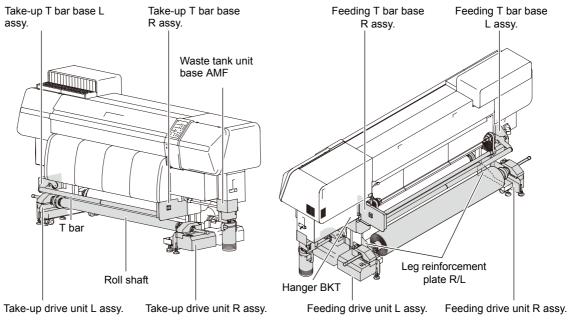
1. Remove the following components from the current device.



• The waste tank unit and feeding roll unit in the diagram are still used after installing the AMF unit. (Other components are not used)

2. Assembling the AMF unit.

• Assemble each of the following components.



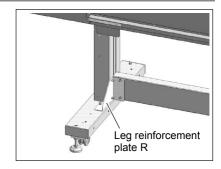


2-3. Assembling the AMF Unit

2-3-1. Attaching leg reinforcement plates R/L

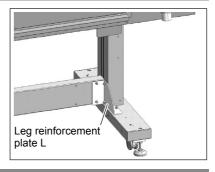
1. Attach leg reinforcement plate R.

• Use ${\rm five}$ CS6 × 20SMW to attach the plate.



2. Attach leg reinforcement plate L.

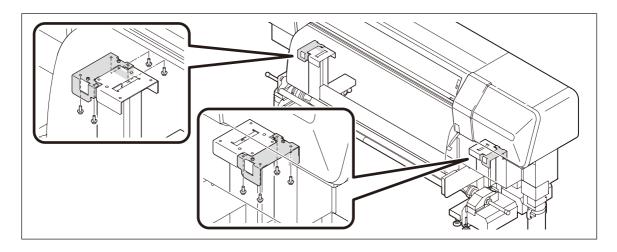
• Use five CS6 × 20SMW to attach the plate.



2-3-2. Attaching the hanger BKT

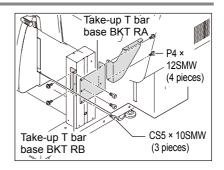
1. Attach the hanger BKT.

- Use four M4 × 12SMW to attach the bracket.
- Use the screw used for old hanger BKT.

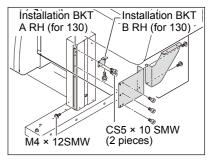


2-3-3. Attaching the take-up T bar base R assy.

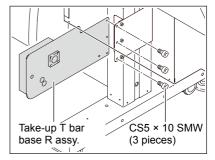
- 1. Attach the take-up T bar base BKT RA and the take-up T bar base BKT RB to the legs of the main unit.
 - Use four P4 \times 12SMW and three CS5 \times 10 SMW to attach the brackets.



As there are no threaded holes in the legs, if you are unable to attach
the take-up T bar base BKT RB, use the additional components as
shown in the diagram on the right.



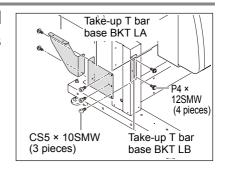
- 2. Attach the take-up T bar base R assy. to the take-up T bar base BKT RA.
 - Use three CS5 × 10SMW to attach the assy.
 - Handle with care not to break the connector.

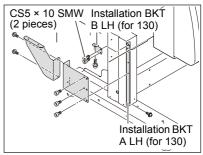


2-3-4. Attaching the take-up T bar base L assy.

1. Attach the take-up T bar base BKT LA and the take-up T bar base BKT LB to the legs of the main unit.

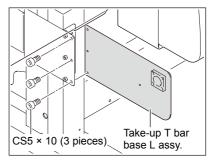
- Use four P4 × 12SMW and three CS5 × 10SMW to attach the brackets.
- As there are no threaded holes in the legs, if you are unable to attach
 the take-up T bar base BKT LB, use the additional components as
 shown in the diagram on the right.





2. Attach the take-up T bar base L assy. to the take-up T bar base BKT LA.

• Use three CS5 × 10SMW to attach the assy.

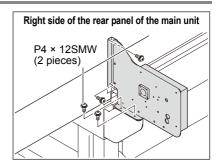


2-3-5. Attaching the feeding T bar base R/L assy.

The work to attach the feeding T bar base R/L assy. is performed from the rear panel of the main unit.

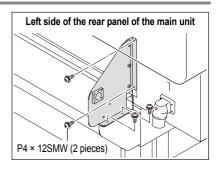
1. Attach the feeding T bar base R assy. to the legs of the main unit.

- Use two P4 × 12SMW to attach the assy.
- Handle with care not to break the connector.



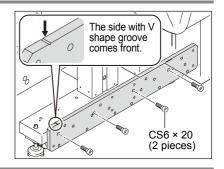
2. Attach the feeding T bar base L assy. to the main unit.

• Use two P4 × 12SMW to attach the assy.

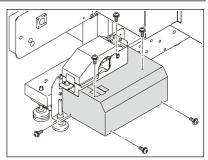


2-3-6. Attaching the take-up drive unit R assy.

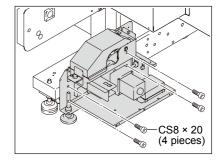
- 1. Attach the take-up/feeding installation plate R to the legs of the main unit.
 - Use four CS6 × 20 to attach the assy.



2. Remove take-up MTR cover upper R.



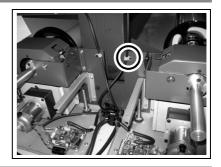
- 3. Attach the take-up drive unit assy. R to the take-up/feeding installation plate R.
 - \bullet Use four CS8 \times 20 to attach the assy.





4. Fix harness of feeding T bar base R ASSY.

• Use the included cable clip and fix with P3 SMW.

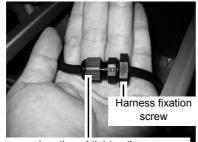


5. Connect harness of feeding T bar base R ASSY with feeding driving part R ASSY.

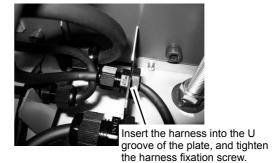
• Pay attention to the connecting direction of the connector.



6. Fix the harness.

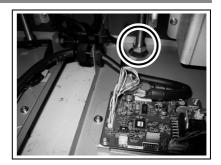


Adjust the harness length and tighten the screw. Loosening: Moves the harness Tightening: Fixes the harness



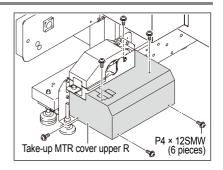
7. Adjust the level foot.

• Lower the level foot until it presses the floor lightly and lock it.



8. Attach the take-up MTR cover upper R.

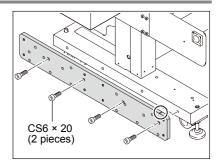
• Use six P4 × 12SMW to attach the cover.



2-3-7. Attaching the take-up drive unit L assy.

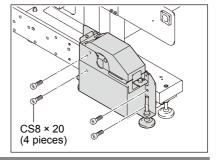
1. Attach the take-up/feeding installation plate L to the legs of the main unit.

- Use four CS6 × 20 to attach the assy.
- Fix the take-up installing plate placing the side with V groove to the front. (Portion indicated with in the drawing at the right)
- Use the countersunk screw hole.



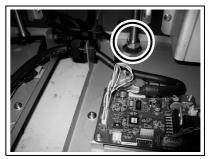
2. Attach the take-up drive unit assy. L to the take-up/feeding installation plate L.

• Use four CS8 × 20 to attach the assy.



3. Adjust the level foot.

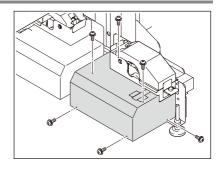
• Lower the level foot until it presses the floor lightly and lock it.



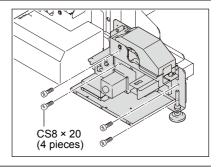


2-3-8. Attaching the feeding drive unit R assy.

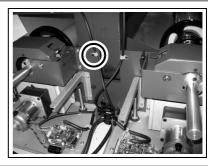
1. Remove feeding MTR cover upper R



- 2. Attach the feeding drive unit assy. R to the take-up/feeding installation plate R.
 - Use four CS8 × 20 to attach the assy.



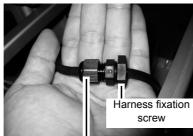
- 3. Fix the harness of take-up T bar base R ASSY.
 - Using attached cable clips and fix with P3 SMW.



- 4. Connect harness of feeding T bar base R ASSY with feeding driving part R ASSY.
 - Pay attention to the direction of the connector.



5. Fix the harness.



Adjust the harness length and tighten the screw.

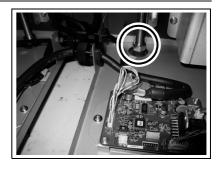
Loosening : Moves the harness Tightening : Fixes the harness



Insert the harness into the U groove of the plate, and tighten the harness fixation screw.

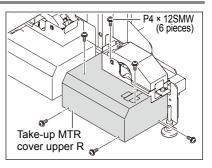
6. Adjust the level foot.

• Lower the level foot until it presses the floor lightly and lock it.



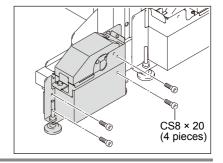
7. Attach the feeding MTR cover upper R.

• Use six P4 × 12SMW to attach the cover.



2-3-9. Attaching the feeding drive unit L assy.

- 1. Attach the feeding drive unit assy. L to the take-up/feeding installation plate L.
 - Use four CS8 × 20 to attach the assy.



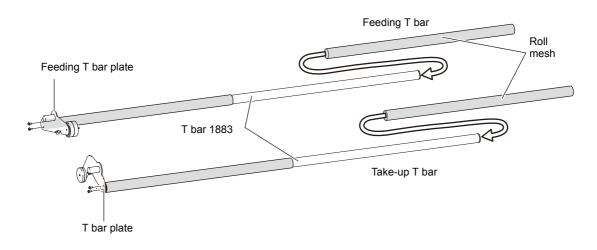
2. Adjust the level foot.

• Lower the level foot until it presses the floor lightly and lock it.



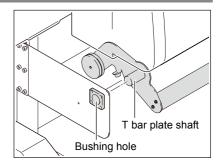
2-3-10. Assembling the feeding/take-up T bar

- 1. Attach the feeding T bar plate and T bar plate to the T bar 1883.
- 2. Insert the roll mesh into the T bar 1883.
 - Use two P4 × 12SMW to attach each plate.

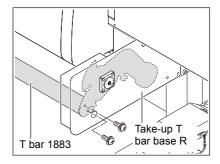


2-3-11. Attaching the take-up T bar

1. Insert the T bar plate shaft into the bushing hole of the take-up T bar base on the left side of the front panel of the main unit.



2. Affix the T bar plate and T bar using screws (two P4 × 12SMW) through the hole in the take-up T bar base R on the right side of the front panel of the main unit.

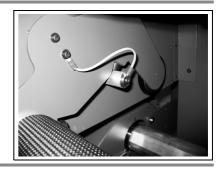


3. Attach the FG.

 \bullet Fix take-up FG cable ASSY and spacer D with screws (P4 x 12SMW).



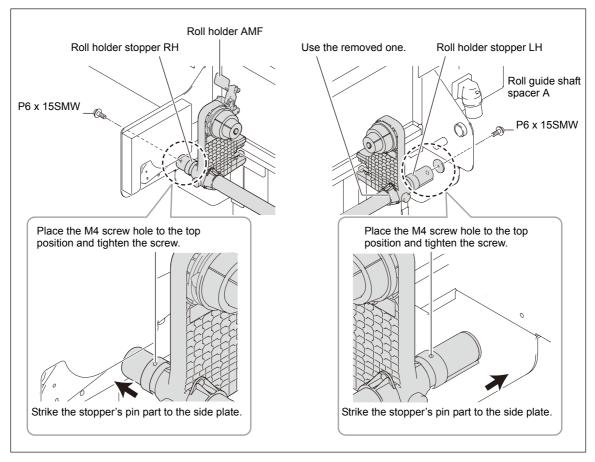
Fix so that take-up FG cable not bitten in the T bar plate when the tension bar is working.



2-3-12. Attaching the feeding roll unit

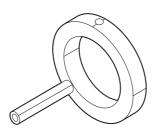
1. Attach the feeding roll unit that you removed earlier to the rear panel of the main unit.

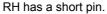
• Use two P6 × 15SMW (one each on the left and right) to attach the unit.

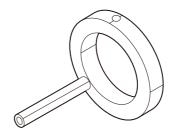




There are differences as shown below between roll holder stopper "RH" and "LH".



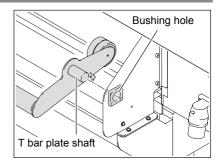




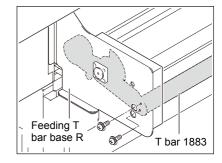
LH has a long pin.

2-3-13. Attaching the feeding T bar

1. Insert the feeding T bar plate shaft into the bushing hole of the feeding T bar base L on the left side of the front panel of the main unit.



2. Affix the T bar plate and T bar using screws (two P4 × 12SMW) through the hole in the feeding T bar base R on the right side of the front panel of the main unit.

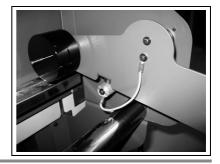


3. Attach the FG.

• Fix take-up FG cable ASSY and spacer D with screws (P4 x 12SMW).

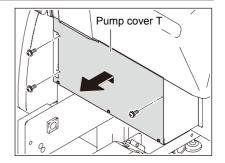


Fix so that take-up FG cable not bitten in the T bar plate when the tension bar is working.

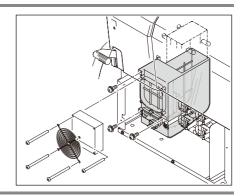


2-3-14. Installing the waste ink tank unit

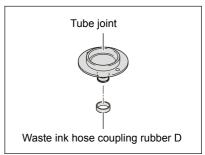
1. Remove the pump cover T.



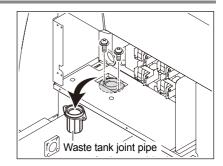
2. Remove the flushing box.



3. Fit the waste ink hose coupling rubber D to the tube joint.

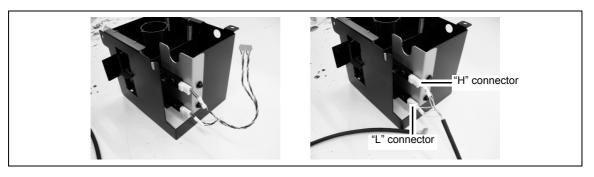


- 4. Remove the waste ink joint pipe and attach the tube joint.
 - Use two P4 × 12SMW to attach the tube joint.



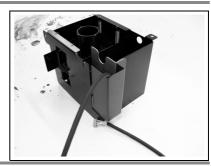
5. Reconnect the harness.

- Remove the short harness having been used up to now, and replace it with the attached waste tank sensor cable ASSY.
- Pay attention not to miss-connect the harness.



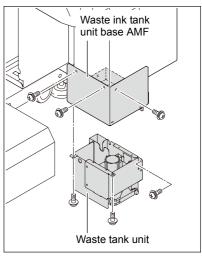
6. Fix the cover.

• Remove the screw of the sensor part and tighten together with waste tank harness cover.



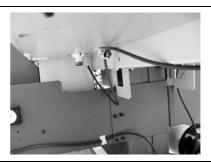
7. Attach the waste ink tank unit base AMF to the main unit.

- Tighten this together with the surface cover RF.
- Use two P4 × 12SMW to attach the waste ink tank unit base AMF.
- 8. Attach the waste tank unit that you removed earlier to the waste tank unit base AMF.



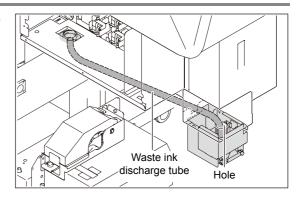
9. Connect the main unit with waste ink tank sensor cable ASSY.



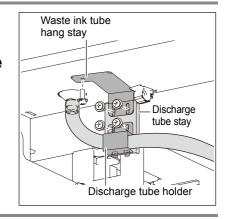




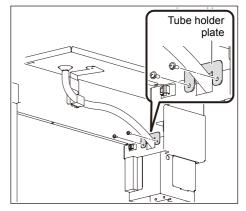
10. Connect the waste ink discharge tube from the tube joint to the hole in the waste tank unit base AMF.



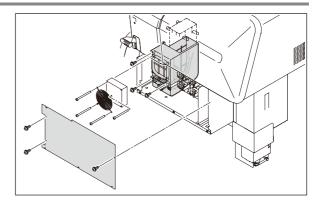
- 11. Attach the waste ink tube hang stay, discharge tube stay, and discharge tube holder along the path in order to affix the waste ink discharge tube.
 - \bullet Use five P4 × 12SMW to attach the stays and holders.



12. Affix the waster ink discharge tube using the tube holder plate.



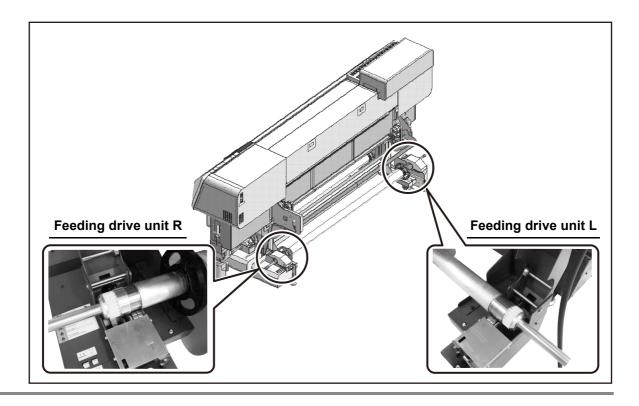
13. Attach the flushing box and pump cover T that you removed earlier.



2-3-15. Installing the roll shaft

The roll shaft installation method is the same for take-up and feeding.

- 1. Open the gear cover of the take-up / feeding drive unit assy. R/L.
- 2. Align the groove on the roll shaft 160 with the position of the bearing in the take-up drive unit R / feeding drive unit R, and insert the roll shaft.
- 3. Close the gear cover of the take-up / feeding drive unit assy. R/L.

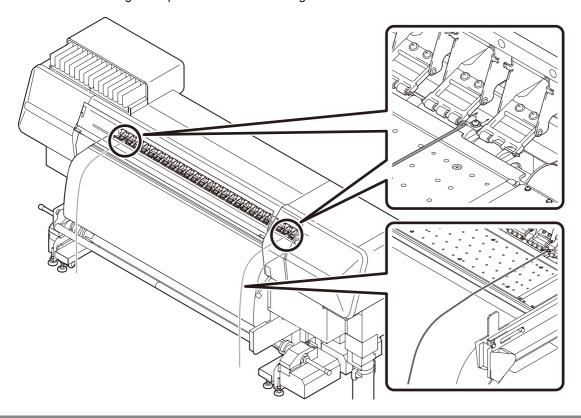




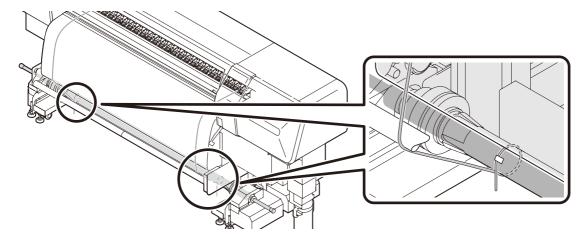
2-3-16. Checking the path length (left and right) of the transport surface

Measure the distance between the pinch roller and the take-up roll shaft when the clamp lever is in the lowered position.

- 1. With the clamp lever in the lowered position, attach string that does not stretch easily (such as flax string) onto the right side.
 - Attach the string in the position shown in the diagram.



- 2. Wrap the string onto the take-up roll shaft, and attach markers using tape at the roll shaft wrapping start position and wrapping end position.
 - Use the same string to check the path length of the left side.



- 3. Measure the path length of the left side using the same method as steps 1 and 2.
- 4. Check the left and right path lengths
 - The difference in path lengths should be within 3 mm.
- 5. Perform the same procedure for the RP and roll holder shaft on the feeding side to measure and check the path length.



If the measurement result is out by 3 mm or more, correct using the following methods

- Feeding side: Use the long hole in the feeding T bar base to correct the path length
- Take-up side: Use the long hole in the take-up T bar base to correct the path length



2-4. Configuring the firmware parameters

After the AMF has been connected to the JV5-130S/160S, you need to turn the power on and configure the parameters.

Configure the parameters using the following procedure.

1) Connect the AMF to the main unit.

There are connectors in two different locations, and the operation can be performed by connecting either of these.

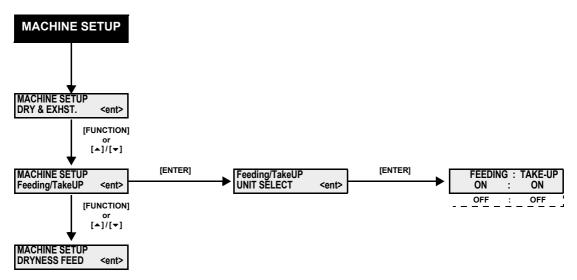
2) Turn the power on and update the parameters.

parameter → Update the following parameters by customize parameter.

- Update the value of No. 27 TAKunit from 0 (default value) to 1.
- Update the value of No. 28 FEDunit from 0 (default value) to 1.

3) Configure whether each of the feeding and take-up units are used or not used.

Configure the usage settings as on or off using the following MACHINE SETTINGS FEEDING/ TAKE-UP.



4) Restart the main unit of the machine.

2-5. Testing the connection after installing the AMF

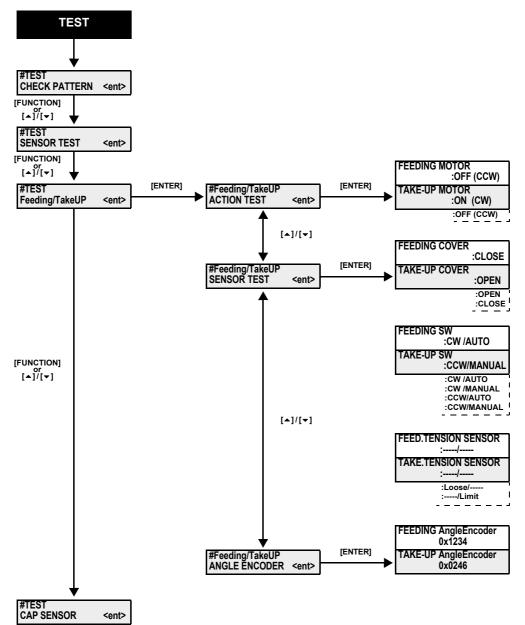
After installing the AMF, perform a test using the following function to ensure there are no problems with the AMF.

<FEEDING&TAKE-UP List of Tests>

Item	Test details		
ACTION TEST	Heavy feeding and take-up motor operation tests.		
	Check whether the feeding and take-up motors operate according to the motor operation/ SW settings.		
	### (@@@) ###:	Motor operating state ON or OFF	
	@@@:	Rotation direction selected by switches on the unit CW or CCW	
SENSOR TEST	Test each of the sensors on the	unit.	
	Changes the states of each of th correctly.	e sensors and checks whether the sensors change	
	<sensor></sensor>	<lcd display=""></lcd>	
	Feeding cover:	OPEN/CLOSE	
	Take-in cover:	OPEN/CLOSE	
	Feeding SW:	CCW/CW, AUTO/MANUAL	
	Take-up SW:	CCW/CW, AUTO/MANUAL	
	Feeding Tension Sensor:	Loose/,/Limit	
	■ Take-up Tension Sensor:	Loose/,/Limit	
ANGLE ENCODER	Test the angle encoder on the AMF. Move the tension bar up and down, and check that the displayed encoder value changes. 0x**** : Feeding/take-up angle encoder value		



<Operation Flowchart>



2-6. Error messages related to the AMF

Error messages relating to the AMF and the steps to resolve these errors when they occur are described below.

Item		Causa	Pasalution procedure
ERROR No.	ERROR	Cause	Resolution procedure
ERROR 64	TAKE-UP VOLTAGE	Abnormal voltage detected in heavy media take-up motor.	Check the connection to the heavy media take-up unit. If the error occurs again after checking the sensor, replace the heavy media take-up circuit board.
	FEEDER VOLTAGE	Abnormal voltage detected in heavy media feeding motor.	Check the connection to the heavy media feeding unit. If the error occurs again after checking the connection, replace the heavy media feeding circuit board.
	Small TAKE-UP VOLT.	Abnormal voltage detected in small take-up motor.	Check the connection to the small take- up unit. If the error occurs again after checking the connection, replace the small take- up circuit board.
ERROR 65	TAKE-UP TENSION BAR	An error occurred during take-up encoder detection. (The encoder/sensor is malfunctioning, or there is no media loaded)	Check that there is media loaded. If the error occurs again after checking the media, check and replace the encoder and sensor.
ERROR 66	FEEDRE TENSION BAR	An error occurred during feeding encoder detection. (The encoder/sensor is malfunctioning, or there is no media loaded)	Check that there is media loaded. If the error occurs again after checking the media, check and replace the encoder and sensor.
ERROR 67	TAKE-UP UNIT 00	An error was detected in the heavy media take-up unit when the power was turned on. (The unit is not installed, or the sensor is malfunctioning)	Check the connection of the heavy media take-up unit, the sensor status, and the sensor attachment location. If the error occurs again after checking the sensor, replace the heavy media take-up circuit board.
	TAKE-UP UNIT 01	Check whether the heavy media take-up unit is disconnected.	Connect the heavy media take-up unit. If the error occurs again after checking the sensor, replace the heavy media take-up circuit board.
	TAKE-UP UNIT 04	Check whether the heavy media take-up unit sensor is malfunctioning.	Check the sensor status and sensor attachment location of the heavy media take-up unit. If the error occurs again after checking the sensor, replace the heavy media take-up circuit board.
	FEEDRE UNIT 00	An error was detected in the heavy media feeding unit when the power was turned on. (The unit is not installed, or the sensor is malfunctioning)	Check the connection of the heavy media feeding unit, the sensor status, and the sensor attachment location. If the error occurs again after checking the connection, replace the heavy media feeding circuit board.
	FEEDRE UNIT01	Check whether the heavy media feeding unit is disconnected.	Connect the heavy media feeding unit. If the error occurs again after checking the connection, replace the heavy media feeding circuit board.



ltem		Cause	Resolution procedure
ERROR No.	ERROR	Vause	Resolution procedure
ERROR 67	FEEDER UNIT 04	Check whether the heavy media feeding unit sensor is malfunctioning.	Check the sensor status and sensor attachment location of the heavy media feeding unit. If the error occurs again after checking the connection, replace the heavy media feeding circuit board.

