

SERVICE INSTRUCTION SI- 13- 02 April 2013

# SERVICE INSTRUCTION

## **RansFlow Touchscreen Replacement Kit**

A change has been made to the RansFlow control unit to update the touchscreen. The current screen was obsoleted by the manufacturer. The part number for this new touchscreen PC is **A13162-01**. It is a compact 6.5" flat panel display, and is completely compatible with the current panel opening and mounting.



**Obsolete Touchscreen** 

New Touchscreen

This kit contains:

Part Number	Description
A13166	Serial port ribbon cable assy.
A13197-00	Flat head cap screw
A13162-01	Touchscreen PC
A13157-00	Bezel
A12722-00	Conductive Seal (Assembled to bezel at the factory)
A12371-8.0	50 conductor ribbon cable assy. (8.0" long)
A13194-00	4-40 x 2.5" Screw, round head slotted
73106-06	Stand off, Nylon, 5/8"
A13193-47	10 conductor ribbon cable assy.
6655-13	Dark Blue, #20 AWG, PVC insulated wire
Si-13-02	Ransflow Touchscreen Replacement Service instruction
	Part Number A13166 A13197-00 A13162-01 A13157-00 A12722-00 A12371-8.0 A13194-00 73106-06 A13193-47 6655-13 Si-13-02

## Old Touchscreen Removal Procedure

### WARNING: DISCONNECT the RansFlow control unit from all incoming power sources

Using a large flat head screw driver, turn the two locks on the front of the panel to allow the door to be opened. (Fig.1)

Once inside the panel, locate and disconnect the ribbon cables from optical isolators boards A and B. (Fig.2)

Remove the power connector from the bottom left corner of the PC using a small flat head screw driver to loosen it.

Disconnect the db-9 connector that runs to the remote operator panel

# WARNING: Before performing the following step, make sure that you HOLD the screen from the out side to keep the screen from falling out on its own.

Once all the cables are disconnected, use a small Phillips head screw driver to loosen and remove all 6 retaining clips. (Fig.3)



Fig.1

Fig.2

Fig.3

Remove the screen from the door opening; it should easily slide out of the opening. Take the PC to a clean bench where you can work on it without damaging the screen. On the back of the of the screen, you will find the PC104 card stack. Using a small Phillips head screwdriver, remove the four corner screws from the stack. Carefully remove the stack taking care not to bend the pins on the bottom.

### Ribbon Cable Replacement

Three ribbon cables on the right side need to be replaced. After removing the 4 corner screws from the PC104 card stack (be careful not to lose the

spacers between the cards), remove the top card.

The second card has two cables that need to be disconnected.

From the kit, locate the A12371-8.0 - 50-conductor ribbon cable assy. (8" long)

Take the uppermost cable off (6.5" long) and insert the 8" cable in its place.

Remove the second cable (5.5" long) and reassemble the 6.5" cable that you just removed in its place.

Remove the next card, disconnect its ribbon cable (4.5" long) and reassemble the previous 5.5" cable in its place. Now replace the cards back on the stack being sure to keep them in the original order.

### Preparing the new touchscreen for assembly into the panel

From the kit, retrieve (1) A13162-01 PC touchscreen, (4) A13194-00 4-40 x 2.5" screws, and (4) 73106-06 stand offs. Un-pack and place the PC touchscreen face down on a protected smooth surface that will not scratch or otherwise damage the screen.

Remove the 4 hex screws in the corners of the screen.

From the kit, retrieve the A13166 serial port ribbon cable assy.

There are two cable ports on the right side of the unit. Insert it in the top one.

Place the (4) 73106-06 stand offs on the four corners, and then put the PC104 card stack on top.

Use the (4) A13194-00 4-40 x 2.5" screws through all 12 spacers.

### **RansFlow Panel Changes**

Inside the panel, you should see several retaining clips on the door and back panel. Open the two clips on the inside of the panel and the clip on the door near the hinge.

From the kit, retrieve the replacement A13193-47 10-conductor Ribbon cable assy.

Find the existing 10 conductor cable assembly (Fig.4). Trace this cable back to its connection on the board at the top left of the of the case. Remove it and replace it with the new A13193-47 ribbon cable.

Now prepare the power connector for the new PC touchscreen (fig.5). Insert and tighten one 14" long piece of the 6655-13 wire in the 5v terminal ( $2^{nd}$  from the bottom) and one in the ground terminal ( $5^{th}$  from bottom).

The 24V signal and ground wires needed for this connector can be found on the lower right hand side of optical isolator board B.

### Assembling the new touchscreen and A13197-00 bezel into the door opening

Place the screen against the back of the opening in the front panel and hold it in place. Connect all ribbon cables to the optical isolator boards. (Fig.6)

This should hold the screen in place while you attach the power connector.

Place the bezel against the front panel so that the 2 tabs on the back of the bezel rest on the bottom of the opening. Line up the bezel holes with the tapped holes on the touchscreen. Start the (4) A13197 4-40 x 3/4" screws by hand and then use a 1/16 Allen wrench to tighten them.

Locate the A13166 serial port ribbon cable assembly connected to the right side of the screen and connect it with the A43193-47 10-conductor ribbon cable assembly that was replaced in the retaining clips.



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Technical Support Representative will direct you to the appropriate telephone number for ordering Spare Parts.

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