

# **INSTALLATION AND OPERATION MANUAL**

# **ICON-CP**



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## PRÉCAUTIONS DURANT UTILISATION

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- 12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.



- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15. This appliance shall not be exposed to dripping or splashing water and that no object filled with liquid such as vases shall be placed on the apparatus.
- 16. Plug this apparatus to the proper wall outlet and make the plug to be disconnected readily operable.
- 17. Main plug is used as disconnected device and it should remain readily operable during intended use. In order to disconnect the apparatus from the mains completely, the mains plug should be disconnected from the mains socket outlet completely.
- 18. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- 19. An appliance with a protective earth terminal should be connected to a mains outlet with a protective earth connection.

- 1. LISEZ ces instructions.
- 2. Tenez ces instructions.
- 3. Notez tous les avertissements.
- 4. Suivez toutes les avertissements.
- 5. N'utilisez pas ce produit près de l'eau (la piscine, la plage, le lac, etc.).
- 6. Nettoyez seulement avec une étoffe sèche.
- 7. Ne bloquez aucuns troux de ventilation. Installez en accord avec les instructions du manufacturier.
- N'installez près aucunes sources de chaleur comme radiateurs, registres de chaleur, fours ou les autres équipements (y compris amplificateurs) qui produisent la chaleur.
- 9. Ne défaites pas le but de sécurité de la fiche polarisée ou base-type. Une fiche polarisée a deux tranchants avec un plus large que l'autre. Une fiche de base type a deux a deux tranchants et une troisième pointe de base, le tranchant large ou la troisième pointe est fourni pour votre sécurité. Si la fiche donnée ne conforme pas votre prise de contact, consultez un électricien pour remplacement de la prise de contact obsolète.
- Protegez le cordon de secteur contre être marchée dessus ou pincez en particulier aux fiches, aux douilles de convenance, et au point où ils sortent de l'appareil.
- 11. Seulement utilisez attachements/accessoires spécifiés par le manufacturier.
- Utilisez seulement avec un chariot, un stand, un trépied, un support ou une table indiquée par le manufacturier, ou vendue avec l'appareil. Quand un chariot est utilisé, faites attention en déplaçant la combinaison d'appareil/chariot pour éviter de se déséquilibrer.
- 13. Arrachez la fiche du dispositif durant éclair et orage ou quand pas utilisé pour longues périodes de temps.



- 14. Référez au personnel qualifié de service pour toutes réparations. La réparation est donnée quand le système a été endommagé à n'importe façon, par exemple un fil ou une fiche endommagé(e) de la source d'alimentation. Avoir été exposé à pluie ou humidité, n'opère pas normalement, ou avoir été tombé.
- L'appareil ne doit pas être exposé aux écoulements ou aux éclaboussures et aucun objet ne contenant de liquide, tel qu'un vase, ne doit être placé sur l'objet.
- 16. Branchez l'appareil à une source appropriée et faire que la prise à débrancher soit facilement accessible.
- La prise du secteur ne doit pas être obstruée ou doit être facilement accessible pendant son utilisation. Pour être complètement déconnecté de l'alimentation d'entrée, la prise doit être débranchée du secteur.
- 18. AVERTISSEMENT: Pour éviter le risque d'incendie ou de chocs électriques, ne pas exposer cet appareil à la pluie ou à l'humidité.
- 19. Un appareil avec la borne de terre de protection doit être connecté au secteur avec la connexiion de terre de protection.



## **ICON-CP**

The ICON control panel is both elegant and ergonomic to suit today's modern installations.

The ICON CP controls a number of Australian Monitor products & will also be compatible with a number of new products making the unit flexible and future proof.

The ICON control panel is programmable to allow for a host of configurations and control options all from the one control panel.

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Revision 1.3 April 2020



Rating plate and caution marking are marked on the back enclosure of the apparatus



**ICON-CP** Control Panel



The Revolution series control panels (ICON-CP) have two banks of DIP switches on the rear of the control panel. The first bank of switches labeled SW1 allows the user to address the panel for RS485 communications. The second bank of switches allows the user to set up the LED functions for the remote panel.

### SW1:

 $\mathsf{RS485}$  addresses 1-240 are allowed. With any other address the unit will blink its error LEDs.

## SW2

A: ON = LED brightness varies based on ambient light, OFF = Fixed Brightness

B: ON = Low brightness (if switch A is on fixed brightnes mode), OFF = Normal Brightness

C: Unused on Revolution series

D: Unused on Revolution series

The ICON-CP control panels do not hold any project data so if a panel was to

fail or be broken it could simply be swapped out with a unit set to the same address. All control panels are constantly polling the RS485 network for status. This will allow the user to update settings via 3rd party, other control panels or the software GUI and have all panels constantly up to date.

Each RS485 port on the Revolution series allows you to run up to 20 control panels to a maximum distance of 500 metres. With each unit featuring two RS485 ports, this allows the AV Revolution to run up to 40 ICON-CP's on two separate 500m runs. The 500m limitation of the control panels is due to power loss over distance and not RS485 limitations therefore if lengths longer than 500m are required you need to inject power locally for greater distances.

The ICON-CP can be used to control certain functions of the AMD100/200.

The set up the control panel all you need to do is address the panel on SW1. Switch 1-8 represent a binary address. For example to address it to ID1 all you need to do is have number 1 on, to address it to 3 have switch 1 and 2 on.

SW2 C and D do not do anything, A and B adjust the LED settings of the panel. With switch A high ambient light adjustment will be turned on. With switch B on, low brightness mode will be activated. Only one switch should be up at a time.

## ID 1: (Switch 1 On)

In this mode the first 5 buttons act as a source select (1-4 and off)

The 6th button acts as a mute control

Buttons 7 and 8 are volume up and volume down for the BGM source

#### NOTE:

BGM Off deselects all the BGM input.

BGM Mute toggles and maintains the selected BGM source for easy unmuting.

-	
	1. BGM 1
	2. BGM 2
	3. BGM 3
	4. BGM 4
	5. BGM Off
	6. BGM Mute
	7. BGM Vol +
	8. BGM Vol -
(	

	1. Mic\Line 1
-	2. Mic\Line 2
-	3. Mic\Line 3
	4. Mic\Line 4
-	5. BGM
-	6. Master
-	+ Volume
-	- Volume

1. Mic\Line 5
2. Mic\Line 6
3. Mic\Line 7
4. Mic\Line 8
5. BGM
6. Master
+ Volume
- Volume

### ID 2: (Switch 2 On)

In this mode the panel acts as 6 individual volume controls.

The first 6 buttons pick the volume you want to control and the bottom two buttons are volume up and volume down.

#### ID 3: (Switch 1 and 2 On)

This mode is the same as two but controls different sources. Note, this is will work on AMD200 only.



With the ICON-CP's DIP switch bank 2(FUNC) set with D on the ICON-CP will control the AMAV IN600.

The control parameters are fixed to three different configurations. These are:

#### Address ID 1: (Switch 1 On)

With this setting you get control over selection of the sources and also volume control of the source mixer. When a source is selected after already being active the unit will switch the source to "Off"

#### Address ID 2: (Switch 2 On)

With this setting you have control over turning the projector on and off. You can also turn each microphone on by triggering its mute control. The volume control will control the mic mixer level on the unit.

#### Address ID 3: (Switch 1 and 2 On)

With this setting selected you have the exact same controls as ID2 except the microphone mute controls are inversed so that the active state will have the microphone off.

#### Powering the ICON-CP

The ICON-CP remote panels will need to be externally powered when being used with the IN600. As these units have RJ45 looped in and outs we now provide a 24V DC power injector that simply has a data in and a P+Data out. It is recommended that this unit be placed close to the ICON-CP, all you need to do is run from the IN600 into the power injector then out to your run of remote panels.

#### Connecting to the IN600

When wiring the ICON-CP panels we suggest simply using premade cables if possible or if terminating your own to follow one standard the whole way that will allow your connections to be pin to pin from the start to the end.

The IN600 has a terminal block for the RS485 bus. The pin out needed to connect the ICON-CP to the IN600 is below:

- Data line A = Pin 3 of the ICON-CP
- Data line B = Pin 6 of the ICON-CP
- Gnd line = Pin 2 of the ICON-CP







Address ID 1: (Switch 1 On)



Address ID 2: (Switch 2 On)



Address ID 3: (Switch 1 and 2 On)

DIMENSIONS

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BOTTOM

ICON-CP MANUAL



ENGINEERED BY AUSTRALIAN MONITOR Address: Unit 1, 2 Daydream Street, Warriewood NSW 2102 Australia Website: www.australianmonitor.com.au International enquiries email: international@australianmonitor.com.au ABN 86 003 231 187 Australian Monitor Knowledge Base



## **Frequently Asked Questions**

Following are answers to some of the most common questions asked about the Australian Monitor ICON-CP.

## Cabling

- Q What cable types can I use with ICON-CP?
- A We recommend using CAT5, CAT5e cable. CAT6 cable may also be used.
- Q What RJ45 connectors can I use with ICON-CP?

**A** We recommend you select an RJ45 connector that matches your chosen cable. Solid core and Multi-stand cables require different RJ45 connectors. Obtaining the correct cable/connector match is important to provide a reliable connection.

#### Q Do I need to wire the RJ45 connectors in any special way?

**A** No. All cabling should be wired straight through, pin 1 to pin1, pin 2 to pin 2 etc. as per the EIA/TIA 568A standard:



Pin	Wire Colour	Signal Description
1	White/Green	Not Used
2	Green	Ground
3	White/Orange	RS485-A
4	Blue	+24 VDC
5	White/Blue	+24 VDC
6	Orange	RS485-B
7	White/Brown	Ground
8	Brown	Not Used

#### Q What is the longest single or total cable length I can use?

**A** We recommend the longest total cable length to be 500 meters or less. You may extend this limitation by inserting an Australian Monitor Power Injector just prior to the 500 meter limit.

#### Q Can I use existing network infrastructure with ICON-CP?

**A** You may use existing copper infrastructure, so long as the wiring is pin for pin. It is important that no other electronics such as switches or routers be used on the ICON-CP network.

Q Can I use a network wireless access point to extend my ICON-CP network?

A No. Only direct copper wiring is supported.

#### **Q** My panel does not work. How can I determine if a panel is faulty or if the cabling is the problem?

**A** Remove the panel from the installed location and test it with a short pre-made cable at the processor/amplifier with all other external RS-485 cabling removed. If the panel functions correctly then your installed cabling is at fault.



Australian Monitor Knowledge Base



## **Frequently Asked Questions**

## Addressing

- Q Can I address multiple panels connected to the same device with identical addresses?
- A No. All panels connected to the same device or controller must have unique addresses.
- Q Can I use address zero (0)?
- A No. Address zero is reserved. Use addresses starting at 1.

#### **Q** Must I use consecutive address or start with address 1?

**A** This depends on the audio device you are using. When used with the Revolution Series you are free to use any address you like (1-240) as these are fully user configurable functions. All other devices (AMD and IN600 etc) are fixed function panels based on the address selection.

## **User Questions**

#### Q Help! The LED indicators are too bright! What can I do?

**A** You can set your panel for "Low Brightness" mode by setting SW2 as follows: 1:Off, 2:On. Alternately you might like to try the automatic brightness mode by setting 1:On, 2:Off. The mode uses an inbuilt light sensor to automatically adjust the LED brightness to suit the ambient light conditions at any given time.

**Q** We decided to change our music sources and we now need to change our button labels. How can we do that?

**A** Download new panel templates from the link below, edit the text using your Adobe Reader, print them out at 100%, trim as marked and replace the existing paper insert by carefully removing the clear ICON-CP cover.

http://www.australianmonitor.com.au/assets/Uploads/Products/Australian-Monitor/DSP-Processors/Accessories/Icon-Control-Panel-Paper-Insert.pdf



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**ICON-CP Address Selection** 

## **ICON-CP** Addressing

The Revolution series control panels (ICON-CP) have two banks of DIP switches on the rear of the control panel. The first bank of switches labelled SW1 allows the user to address the panel for RS485 communications. The second bank of switches allows the user to set up the LED functions for the remote panel.

### ICON-CP Control Panel



## SW1:

RS485 addresses 1-240 are allowed. Any address outside this range will cause the panel to blink its LED's indicating a communication error.

Address 0 is invalid and should not be used.

The switch settings for all valid binary addresses are listed in the tables below.

DIP switches marked as "-" should be set to the OFF position.



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# ICON-CP Address Selection

		_	_					
DIP Switch #	1	2	3	4	5	6	7	8
Address								
1	ON	-	-	-	-	-	-	-
2	-	ON	-	-	-	-	-	-
3	ON	ON	-	-	-	-	-	-
4	-	-	ON	-	-	-	-	-
5	ON	-	ON	-	-	-	-	-
6	-	ON	ON	-	-	-	-	-
7	ON	ON	ON	-	-	-	-	-
8	-	-	-	ON	-	-	-	-
9	ON	-	-	ON	-	-	-	-
10	-	ON	-	ON	-	-	-	-
11	ON	ON	-	ON	-	-	-	-
12	-	-	ON	ON	-	-	-	-
13	ON	-	ON	ON	-	-	-	-
14	-	ON	ON	ON	-	-	-	-
15	ON	ON	ON	ON	-	-	-	-
16	-	-	-	-	ON	-	-	-
17	ON	-	-	-	ON	-	-	-
18	-	ON	-	-	ON	-	-	-
19	ON	ON	-	-	ON	-	-	-
20	-	-	ON	-	ON	-	-	-
21	ON	-	ON	-	ON	-	-	-
22	-	ON	ON	-	ON	-	-	-
23	ON	ON	ON	-	ON	-	-	-
24	-	-	-	ON	ON	-	-	-
25	ON	-	-	ON	ON	-	-	-
26	-	ON	-	ON	ON	-	-	-
27	ON	ON	-	ON	ON	-	-	-
28	-	-	ON	ON	ON	-	-	-
29	ON	-	ON	ON	ON	-	-	-
30	-	ON	ON	ON	ON	-	-	-
31	ON	ON	ON	ON	ON	-	-	-
32	-	-	-	-	-	ON	-	-

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**ICON-CP Address Selection** 



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#### 5 7 **DIP Switch #** 2 3 4 6 8 1 Address 33 ON ON ----\_ \_ 34 -ON ---ON -\_ 35 ON ON -ON ----ON ON 36 ------37 ON ON ON -----ON ON ON 38 -----39 ON ON ON ON ----40 ---ON -ON -\_ 41 ON --ON ON --\_ 42 -ON -ON -ON \_ -43 ON ON ON ON --\_ -44 ON ON ON -----ON ON 45 ON ON ----46 -ON ON ON -ON --47 ON ON ON ON ON ---48 ON ON ------49 ON -ON ON ----50 ON ON ON -----51 ON ON ON ON ----52 ON ON ON -----ON 53 ON --ON ON --54 -ON ON -ON ON --55 ON ON ON -ON ON --56 ON --ON ON --\_ 57 ON ON ON ON --\_ -58 -ON -ON ON ON --59 ON ON ON ON ON -\_ \_ 60 --ON ON ON ON --ON 61 ON -ON ON ON --62 ON ON ON ON ON ---63 ON ON ON ON ON ON --64 ON -\_ --\_ --

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**ICON-CP Address Selection** 



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#### 5 7 **DIP Switch #** 2 3 4 6 8 1 Address ON ON 65 ---\_ -\_ 66 -ON ----ON \_ 67 ON ON ---ON --ON ON 68 ------69 ON ON ON -----70 ON ON ON -----71 ON ON ON ON ----72 ON ---ON ---73 ON --ON ON --\_ 74 -ON -ON --ON -75 ON ON ON ON ----76 ON ON ON -----77 ON ON ON ON ----78 -ON ON ON --ON -79 ON ON ON ON ON ---80 ON ON ------81 ON -ON ON ----82 -ON ON ON ----83 ON ON ON ON ----ON ON ON 84 -----ON 85 ON --ON -ON -86 -ON ON -ON -ON -87 ON ON ON -ON ON --88 --ON ON ON --\_ ON 89 ON ON ON ----90 -ON -ON ON -ON -91 ON ON ON ON ON --\_ 92 --ON ON ON -ON -ON ON 93 ON -ON ON --94 ON ON ON ON ON ---95 ON ON ON ON ON -ON -96 ON ON -\_ ----

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## ICON-CP Address Selection

	T		[	[		[	[	
DIP Switch #	1	2	3	4	5	6	7	8
Address								
97	ON	-	-	-	-	ON	ON	-
98	-	ON	-	-	-	ON	ON	-
99	ON	ON	-	-	-	ON	ON	-
100	-	-	ON	-	-	ON	ON	-
101	ON	-	ON	-	-	ON	ON	-
102	-	ON	ON	-	-	ON	ON	-
103	ON	ON	ON	-	-	ON	ON	-
104	-	-	-	ON	-	ON	ON	-
105	ON	-	-	ON	-	ON	ON	-
106	-	ON	-	ON	-	ON	ON	-
107	ON	ON	-	ON	-	ON	ON	-
108	-	-	ON	ON	-	ON	ON	-
109	ON	-	ON	ON	-	ON	ON	-
110	-	ON	ON	ON	-	ON	ON	-
111	ON	ON	ON	ON	-	ON	ON	-
112	-	-	-	-	ON	ON	ON	-
113	ON	-	-	-	ON	ON	ON	-
114	-	ON	-	-	ON	ON	ON	-
115	ON	ON	-	-	ON	ON	ON	-
116	-	-	ON	-	ON	ON	ON	-
117	ON	-	ON	-	ON	ON	ON	-
118	-	ON	ON	-	ON	ON	ON	-
119	ON	ON	ON	-	ON	ON	ON	-
120	-	-	-	ON	ON	ON	ON	-
121	ON	-	-	ON	ON	ON	ON	-
122	-	ON	-	ON	ON	ON	ON	-
123	ON	ON	-	ON	ON	ON	ON	-
124	-	-	ON	ON	ON	ON	ON	-
125	ON	-	ON	ON	ON	ON	ON	-
126	-	ON	ON	ON	ON	ON	ON	-
127	ON	-						
128	-	-	-	-	-	-	-	ON

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**ICON-CP Address Selection** 



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#### 7 **DIP Switch #** 2 3 4 5 6 8 1 Address 129 ON ON \_ --\_ -\_ 130 -ON ---\_ ON -131 ON ON -ON ----132 ON ON ------133 ON ON ON -----134 ON ON ON -----135 ON ON ON ON ----136 ---ON \_ --ON 137 ON -ON ON ----138 -ON -ON -\_ ON -139 ON ON ON ON ---\_ 140 ON ON ON -----141 ON ON ON ON ----142 -ON ON ON -ON --143 ON ON ON ON ---ON 144 ON ON ------145 ON -ON ON ----146 ON ON ON -----147 ON ON ON ON ----148 ON ON ON -----ON 149 ON --ON --ON 150 -ON ON -ON -ON -151 ON ON ON -ON ON --152 ON ON ON -\_ ---153 ON ON ON ON -\_ --154 -ON -ON ON --ON 155 ON ON ON ON ON --\_ 156 --ON ON ON --ON 157 ON -ON ON ON --ON 158 ON ON ON ON ON ---159 ON ON ON ON ON -ON -160 ON -ON -----

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**ICON-CP Address Selection** 



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#### **DIP Switch #** 2 3 4 5 6 7 8 1 Address ON ON ON 161 \_ ---\_ 162 -ON ---ON \_ ON 163 ON ON -ON ON ---164 ON ON ON -----165 ON ON ON ON ----ON ON ON ON 166 ----167 ON ON ON ON ON ---168 ---ON -ON -ON 169 ON -ON ON ON ---170 -ON -ON -ON -ON 171 ON ON ON ON ON --\_ 172 ON ON ON ON ----173 ON ON ON ON ON ---174 ON ON ON -ON -ON -175 ON ON ON ON ON --ON 176 ON ON ON -----177 ON ON ON ON ----178 ON ON ON ON ----179 ON ON ON ON ON ---ON ON ON ON 180 ----181 ON -ON -ON ON -ON 182 -ON ON -ON ON -ON 183 ON ON ON -ON ON ON -184 ON ON ON ON -\_ --185 ON ON ON ON -ON --186 -ON -ON ON ON -ON 187 ON ON ON ON ON ON --188 --ON ON ON ON -ON ON 189 ON -ON ON ON -ON 190 ON ON ON ON ON ON --191 ON ON ON ON ON ON -ON 192 ON ON ------

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**ICON-CP Address Selection** 



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#### **DIP Switch #** 2 3 4 5 6 7 8 1 Address 193 ON ON ON \_ --\_ -194 -ON ----ON ON 195 ON ON -ON ON ---ON ON ON 196 ---\_ -197 ON ON ON ON ----ON ON ON ON 198 ----199 ON ON ON ON ON ---ON 200 ---ON \_ -ON ON 201 ON -ON ON ---202 -ON -ON \_ \_ ON ON 203 ON ON ON ON ON ---204 ON ON ON ON ----205 ON ON ON ON ON ---206 ON ON ON ON ON ---207 ON ON ON ON --ON ON 208 ON ON ON -----ON ON ON 209 ON ----210 ON ON ON ON ----211 ON ON ON ON ON ---212 ON ON ON ON ----213 ON -ON -ON -ON ON 214 -ON ON -ON -ON ON 215 ON ON ON ON ON ON --216 ON ON ON ON -\_ --217 ON ON ON ON ON ---218 -ON -ON ON -ON ON ON ON ON ON ON ON 219 --220 --ON ON ON -ON ON 221 ON -ON ON ON -ON ON 222 ON ON ON ON ON ON --223 ON ON ON ON ON -ON ON 224 ON ON ON -----

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# ICON-CP Address Selection

DIP Switch #	1	2	3	4	5	6	7	8
Address		•		•	•			•
225	ON	-	-	-	-	ON	ON	ON
226	-	ON	-	-	-	ON	ON	ON
227	ON	ON	-	-	-	ON	ON	ON
228	-	-	ON	-	-	ON	ON	ON
229	ON	-	ON	-	-	ON	ON	ON
230	-	ON	ON	-	-	ON	ON	ON
231	ON	ON	ON	-	-	ON	ON	ON
232	-	-	-	ON	-	ON	ON	ON
233	ON	-	-	ON	-	ON	ON	ON
234	-	ON	-	ON	-	ON	ON	ON
235	ON	ON	-	ON	-	ON	ON	ON
236	-	-	ON	ON	-	ON	ON	ON
237	ON	-	ON	ON	-	ON	ON	ON
238	-	ON	ON	ON	-	ON	ON	ON
239	ON	ON	ON	ON	-	ON	ON	ON
240	-	-	-	-	ON	ON	ON	ON





# **Icon Control Panel Paper Insert**

When printing, set options to do not scale. Print at actual size of 100% on A4 paper, page scaling set at none and auto-rotate and centre.

