

IRFast Concept and Integrity Panels

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To accommodate IRFast Concept and Integrity panels, there is an option (IRFFMT) that can be added to the Ademco685 driver. This specifies how IR Fast signal processing will format the zone. Before zone information is entered for IR Fast systems, it must be decided which format to use. The zones must then be entered in the decided format so that signal processing will be able to find the zones. If a data conversion has been used to populate the Manitou data, the decision should have been made before the conversion was run so the conversion would format the zones properly.

The following values are supported. Any other value will revert back to the default behavior. Template default transmitter type programming is available to accommodate options 1, 7, and 8. If a data conversion was used, the appropriate default transmitter types (with programming) will already have been created by the conversion. The 3-digit zone is always zero-filled (001-250). Formats 1, 7, and 8 end with NNN which is the 3-digit module number (001-250).

0 (default): Zone format is NNZZZ where NN is the module number in hex (1 – 80) and ZZZ is the 3-digit zone.

1: Zone format is ZzzzTNNN. Zzzz = the letter Z, followed by 3-digit zone. T = single-character representation of the module type. This format is not a documented industry standard, but is the best-known and accepted format among the users of IR Fast.

7: Zone format is TZZZNNN. T = single-character representation of the module type. ZZZ = 3-digit zone.

8: Zone format is TTZZZNNN. TT = actual number of the module type (module types < 10 will have the leading zero replaced with @). ZZZ = 3-digit zone.

The single-character representations of the Module Types are as follows. (The replacement characters are not necessarily a documented industry standard, but are accepted as common knowledge among the users of IR Fast.) The preceding statement about replacement characters used to be true, but Inner Range has now included the intended replacement characters in their documentation. This does not mean IRFast customers are necessarily *forced* to use the recommended characters, but the characters used in transmitter programming must match the characters in our receiver driver. Note that only 32 Module Types can be defined using this option (00-31). Also note that any Module Types not listed here did not exist at the time of this writing, and will use character ! if ever received.

0 -> C
1 -> T
2 -> K
3 -> B
4 -> R
5 -> N
6 -> M
7 -> E
8 -> I
9 -> Q
10 -> E
11 -> P
12 -> F
16 -> G

17 -> E
18 -> R
19 -> I
20 -> F
25 -> P
29 -> V
30 -> V
31 -> U

Note that Inner Range has assigned newer module type 25 the letter P which overlaps with module type 11. Because these both have pre-defined zones, and the zones do not match, and both modules types are applicable to Concept and Integrity modules, they have overlapping pre-defined zones in the default transmitter programming. If the situation is ever encountered where a customer has both Concept and Integrity panels using both of those module types, we will have to address making those characters unique, or they will have to use IRFFMT=8.

Example:

Module Type 0, Zone 3, Module Number 001:

Format	Resulting Zone
0	01003
1	Z003C001
7	C003001
8	@0003001

Event Designations (DES or Input Event)

This option also affects the DES format of IR Fast signals. The default format of DES is:

- Concept panels: EMMZZZ where E = event type (also referred to as "input state") (A = Alarm, B = Isolate, R = Restore, T = Tamper), MM = module type, ZZZ = 3-digit zone
- Integrity panels: ESSMMZZZ where E = message type (A = Alarm, R = Restore, N = Status), SS = state that changed, MM = module type, ZZZ = 3-digit zone

For formats 1, 7, 8 the DES is:

- Concept panels: IRC + event type (A, B, R, T). Result is IRCA, IRCB, IRCR or IRCT.
- Integrity panels: IRI + state that changed (00 – 16) + message type (A, R, N). Examples: Low battery (state 10) alarm = IRI10A. Fault (state 4) restore = IRI04R.

Example transmitter programming

These examples all show format 1 as that should be the standard format. The Input Event and/or Input/Output Zone would be adjusted appropriately for other formats.

The zones are formatted with the Module Number last so that portion can be wildcarded. The first example shows that regardless of the Module Number received, an alarm on zone 1 from Module Type 4 (Z001R) will be translated to a *D Door Access. The Output Zone will append the received Module Number so the zone would show as Z001R002 for Module Number 002.

Concept panels, alarm events (#IRCA):

TX Programming										
Input Event	Input Area	Input Zone	Input Sensor	Output Event	Description	Output Area	Output Zone	Output Sensor	Point ID	Commands Help
#IRCA	*	*	*	BA	Burglary Alarm	=	=	=		
#IRCA	*	Z001R*	*	*D	Door Access	=	Z001R=	=	Door Reed	
#IRCA	*	Z001U*	*	%S	System Reset	=	Z001U=	=	Reset	
#IRCA	*	Z001V*	*	*T	Trouble	=	Z001V=	=	Loss of Polling	
#IRCA	*	Z002R*	*	*D	Door Access	=	Z002R=	=	REX or REN 1st Door or REX 2nd Door	
#IRCA	*	Z002U*	*	LS	Local Program Success	=	Z002U=	=	Programming Change	
#IRCA	*	Z002V*	*	*T	Trouble	=	Z002V=	=	Message Quarantined	
#IRCA	*	Z003K*	*	TA	Tamper Alarm	=	Z003K=	=	Cabinet Tamper	
#IRCA	*	Z003P*	*	TA	Tamper Alarm	=	Z003P=	=	Cabinet Tamper	
#IRCA	*	Z003R*	*	*D	Door Access	=	Z003R=	=	REX 1st Door	
#IRCA	*	Z003T*	*	TA	Tamper Alarm	=	Z003T=	=	Cabinet Tamper	
#IRCA	*	Z003U*	*	PA	Panic Alarm	=	Z003U=	=	Panic	
#IRCA	*	Z003V*	*	*T	Trouble	=	Z003V=	=	Alarm Out of Sequence	

Concept panels, bypass events (#IRCB):

TX Programming										
Input Event	Input Area	Input Zone	Input Sensor	Output Event	Description	Output Area	Output Zone	Output Sensor	Point ID	Commands Help
#IRCA	*	Z047C*	*	KA	Manual Test	=	Z047C=	=	Expander Power test	
#IRCA	*	Z048C*	*	*A	Activation	=	Z048C=	=	Expansion	
#IRCA	*	Z048U*	*	TA	Tamper Alarm	=	Z048U=	=	Cabinet Tamper	
#IRCB	*	*	*	BB	Burglary Bypass	=	=	=		
#IRCB	*	Z001R*	*	*B	Bypass	=	Z001R=	=	Door Reed	
#IRCB	*	Z001U*	*	*B	Bypass	=	Z001U=	=	Reset	
#IRCB	*	Z001V*	*	*B	Bypass	=	Z001V=	=	Loss of Polling	
#IRCB	*	Z002R*	*	*B	Bypass	=	Z002R=	=	REX or REN 1st Door or REX 2nd Door	
#IRCB	*	Z002U*	*	*B	Bypass	=	Z002U=	=	Programming Change	
#IRCB	*	Z002V*	*	*B	Bypass	=	Z002V=	=	Message Quarantined	
#IRCB	*	Z003K*	*	TB	Tamper Bypass	=	Z003K=	=	Cabinet Tamper	
#IRCB	*	Z003P*	*	TB	Tamper Bypass	=	Z003P=	=	Cabinet Tamper	
#IRCB	*	Z003R*	*	*B	Bypass	=	Z003R=	=	REX 1st Door	

Concept panels, restore events (#IRCR):

TX Programming

Q

Input Event	Input Area	Input Zone	Input Sensor	Output Event	Description	Output Area	Output Zone	Output Sensor	Point ID	Commands	Help
#IRCB	*	Z048U*	*	TB	Tamper Bypass	=	Z048U=	=	Cabinet Tamper		
#IRCR	*	*	*	BR	Burglary Restoral	=	=	=			
#IRCR	*	Z001R*	*	*R	Restore	=	Z001R=	=	Door Reed		
#IRCR	*	Z001U*	*	*R	Restore	=	Z001U=	=	Reset		
#IRCR	*	Z001V*	*	*R	Restore	=	Z001V=	=	Loss of Polling		
#IRCR	*	Z002R*	*	*R	Restore	=	Z002R=	=	REX or REN 1st Door or REX 2nd Door		
#IRCR	*	Z002U*	*	*R	Restore	=	Z002U=	=	Programming Change		
#IRCR	*	Z002V*	*	*R	Restore	=	Z002V=	=	Message Quarantined		
#IRCR	*	Z003K*	*	TR	Tamper Restoral	=	Z003K=	=	Cabinet Tamper		
#IRCR	*	Z003P*	*	TR	Tamper Restoral	=	Z003P=	=	Cabinet Tamper		
#IRCR	*	Z003R*	*	*R	Restore	=	Z003R=	=	REX 1st Door		
#IRCR	*	Z003T*	*	TR	Tamper Restoral	=	Z003T=	=	Cabinet Tamper		

Concept panels, tamper events (#IRCT):

TX Programming

Q

Input Event	Input Area	Input Zone	Input Sensor	Output Event	Description	Output Area	Output Zone	Output Sensor	Point ID	Commands	Help
#IRCR	*	Z048U*	*	TR	Tamper Restoral	=	Z048U=	=	Cabinet Tamper		
#IRCT	*	*	*	BA7	Burg Tamper	=	=	=			
#IRCT	*	Z001R*	*	TA	Tamper Alarm	=	Z001R=	=	Door Reed		
#IRCT	*	Z001U*	*	TA	Tamper Alarm	=	Z001U=	=	Reset		
#IRCT	*	Z001V*	*	TA	Tamper Alarm	=	Z001V=	=	Loss of Polling		
#IRCT	*	Z002R*	*	TA	Tamper Alarm	=	Z002R=	=	REX or REN 1st Door or REX 2nd Door		
#IRCT	*	Z002U*	*	TA	Tamper Alarm	=	Z002U=	=	Programming Change		
#IRCT	*	Z002V*	*	TA	Tamper Alarm	=	Z002V=	=	Message Quarantined		
#IRCT	*	Z003K*	*	TA	Tamper Alarm	=	Z003K=	=	Cabinet Tamper		
#IRCT	*	Z003P*	*	TA	Tamper Alarm	=	Z003P=	=	Cabinet Tamper		
#IRCT	*	Z003R*	*	TA	Tamper Alarm	=	Z003R=	=	REX 1st Door		
#IRCT	*	Z003T*	*	TA	Tamper Alarm	=	Z003T=	=	Cabinet Tamper		

Integriti panels, alarm on state 00:

TX Programming

Q

Input Event	Input Area	Input Zone	Input Sensor	Output Event	Description	Output Area	Output Zone	Output Sensor	Point ID	Commands	Help
#IRIO0A	*	*	*	BR	Alarm- All Sealed	=	=	=			
#IRIO0A	*	Z003G*	*	*R	Alarm- All Sealed	=	Z003G=	=	Door Reed		
#IRIO0A	*	Z004G*	*	*R	Alarm- All Sealed	=	Z004G=	=	Door Tongue		
#IRIO0A	*	Z005G*	*	TR	Alarm- All Sealed	=	Z005G=	=	Door Lock Tamper		
#IRIO0A	*	Z006G*	*	*R	Alarm- All Sealed	=	Z006G=	=	Door Forced		
#IRIO0A	*	Z007G*	*	DH	Alarm- All Sealed	=	Z007G=	=	Door Open Too Long		
#IRIO0A	*	Z008G*	*	TR	Alarm- All Sealed	=	Z008G=	=	Cabinet Tamper		
#IRIO0A	*	Z009G*	*	AR	Alarm- All Sealed	=	Z009G=	=	AC Fail		
#IRIO0A	*	Z009I*	*	TR	Alarm- All Sealed	=	Z009I=	=	Cabinet Tamper		
#IRIO0A	*	Z009R*	*	*R	Alarm- All Sealed	=	Z009R=	=	Door 1 Reed		
#IRIO0A	*	Z010G*	*	YR	Alarm- All Sealed	=	Z010G=	=	Low Battery		
#IRIO0A	*	Z010I*	*	AR	Alarm- All Sealed	=	Z010I=	=	AC Fail		
#IRIO0A	*	Z010D*	*	*D	Alarm- All Sealed	=	Z010D=	=	Door 2 Reed		

Integriti panels, status on state 00:

TX Programming											
Input Event	Input Area	Input Zone	Input Sensor	Output Event	Description	Output Area	Output Zone	Output Sensor	Point ID	Commands	Help
#IRI00N	*	Z003G*	*	*ST	Status- All Sealed	=	Z003G=	=	Door Reed		
#IRI00N	*	Z004G*	*	*ST	Status- All Sealed	=	Z004G=	=	Door Tongue		
#IRI00N	*	Z005G*	*	*ST	Status- All Sealed	=	Z005G=	=	Door Lock Tamper		
#IRI00N	*	Z006G*	*	*ST	Status- All Sealed	=	Z006G=	=	Door Forced		
#IRI00N	*	Z007G*	*	*ST	Status- All Sealed	=	Z007G=	=	Door Open Too Long		
#IRI00N	*	Z008G*	*	*ST	Status- All Sealed	=	Z008G=	=	Cabinet Tamper		
#IRI00N	*	Z009G*	*	*ST	Status- All Sealed	=	Z009G=	=	AC Fail		
#IRI00N	*	Z009I*	*	*ST	Status- All Sealed	=	Z009I=	=	Cabinet Tamper		
#IRI00N	*	Z009R*	*	*ST	Status- All Sealed	=	Z009R=	=	Door 1 Reed		
#IRI00N	*	Z010G*	*	*ST	Status- All Sealed	=	Z010G=	=	Low Battery		
#IRI00N	*	Z010I*	*	*ST	Status- All Sealed	=	Z010I=	=	AC Fail		
#IRI00N	*	Z010R*	*	*ST	Status- All Sealed	=	Z010R=	=	Door 2 Reed		

Integriti panels, restore on state 00:

TX Programming											
Input Event	Input Area	Input Zone	Input Sensor	Output Event	Description	Output Area	Output Zone	Output Sensor	Point ID	Commands	Help
#IRI00N	*	Z211C*	*	*ST	Status- All Sealed	=	Z211C=	=	Battery Test (External Supply)		
#IRI00R	*	*	*	BR	Restore- All Sealed	=	=	=			
#IRI00R	*	Z003G*	*	*R	Restore- All Sealed	=	Z003G=	=	Door Reed		
#IRI00R	*	Z004G*	*	*R	Restore- All Sealed	=	Z004G=	=	Door Tongue		
#IRI00R	*	Z005G*	*	TR	Restore- All Sealed	=	Z005G=	=	Door Lock Tamper		
#IRI00R	*	Z006G*	*	*R	Restore- All Sealed	=	Z006G=	=	Door Forced		
#IRI00R	*	Z007G*	*	DH	Restore- All Sealed	=	Z007G=	=	Door Open Too Long		
#IRI00R	*	Z008G*	*	TR	Restore- All Sealed	=	Z008G=	=	Cabinet Tamper		
#IRI00R	*	Z009G*	*	AR	Restore- All Sealed	=	Z009G=	=	AC Fail		
#IRI00R	*	Z009I*	*	TR	Restore- All Sealed	=	Z009I=	=	Cabinet Tamper		
#IRI00R	*	Z009R*	*	*R	Restore- All Sealed	=	Z009R=	=	Door 1 Reed		
#IRI00R	*	Z010G*	*	YR	Restore- All Sealed	=	Z010G=	=	Low Battery		

Integriti panels, alarm on state 01:

TX Programming											
Input Event	Input Area	Input Zone	Input Sensor	Output Event	Description	Output Area	Output Zone	Output Sensor	Point ID	Commands	Help
#IRI01A	*	*	*	BA	Alarm- Alarm	=	=	=			
#IRI01A	*	Z003G*	*	*D	Alarm- Alarm	=	Z003G=	=	Door Reed		
#IRI01A	*	Z004G*	*	*D	Alarm- Alarm	=	Z004G=	=	Door Tongue		
#IRI01A	*	Z005G*	*	TA	Alarm- Alarm	=	Z005G=	=	Door Lock Tamper		
#IRI01A	*	Z006G*	*	DF	Alarm- Alarm	=	Z006G=	=	Door Forced		
#IRI01A	*	Z007G*	*	DL	Alarm- Alarm	=	Z007G=	=	Door Open Too Long		
#IRI01A	*	Z008G*	*	TA	Alarm- Alarm	=	Z008G=	=	Cabinet Tamper		
#IRI01A	*	Z009G*	*	AT	Alarm- Alarm	=	Z009G=	=	AC Fail		
#IRI01A	*	Z009I*	*	TA	Alarm- Alarm	=	Z009I=	=	Cabinet Tamper		
#IRI01A	*	Z009R*	*	*D	Alarm- Alarm	=	Z009R=	=	Door 1 Reed		
#IRI01A	*	Z010G*	*	YT	Alarm- Alarm	=	Z010G=	=	Low Battery		
#IRI01A	*	Z010I*	*	AT	Alarm- Alarm	=	Z010I=	=	AC Fail		
#IRI01A	*	Z010R*	*	*D	Alarm- Alarm	=	Z010R=	=	Door 2 Reed		

Installing default transmitter programming templates

The attached .txt files contain template programming that can be inserted into default transmitter types. If a data conversion was used to populate the Manitou data, the applicable default transmitter types should already be there.

[irfastconc8.txt](#)

[IRFASTINTEG1.txt](#)

[IRFASTCONC1.txt](#)

[irfastinteg7.txt](#)

[irfastinteg8.txt](#)

[irfastconc7.txt](#)

Separate default transmitter types must be created for Concept panels and Integriti panels. The data conversion will have created IRFASTCONCPT and IRFASTINTEG. To import template programming, create a new default transmitter type and ensure the "Raw Event Programming" option is enabled. In the Web Client, edit the transmitter programming and select the "Copy/Paste Tx Programming" icon. Select All from the template file and paste into the form.

The template files are numbered to match the format value. For example, when using format 1, choose IRFASTCONC1.txt for a Concept default transmitter type and IRFASTINTEG1.txt for an Integriti default transmitter type.