



# ICI

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INFRARED CAMERAS INC

## ROUND IR WINDOW SERIES QUICK START GUIDE



ICI cameras fall under US Federal Law and Export Control.

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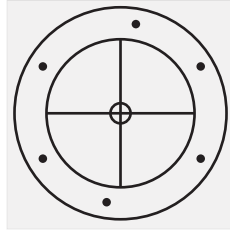
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## Package Includes



Round Window



Fitting Template

**FITTING TEMPLATES VARY BY WINDOW SIZE. DO NOT CUT HOLES BEFORE RECEIVING THE FITTING TEMPLATE.**

Location:	<input type="text"/>
IR Window No:	<input type="text"/>
Lens Material:	<input type="text"/>
Transmission:	<input type="text" value="SW"/> <input type="text" value="LW"/>
Notes:	<input type="text"/>

Window Label

**IR WINDOW INSTRUCTIONS FOR USE**

**CAUTION: THIS DEVICE IS INCOMPLETE WITHOUT THE COVER FITTED**

1. Undo all four protective cover locking screws two complete turns and slide toggle bolts away from cover.
2. Rotate cover anti-clockwise.
3. Take thermographic image (Remember to record data from IR window: location, transmission rate, etc).
4. Rotate cover clockwise to locate cover in closed position.
5. Slide Toggle bolts into location grooves and fully tighten all four locking screws. (Min 0.2 Nm)

Instruction Label

**ENSURE ALL SYSTEM EQUIPMENT AND COMPONENT ITEMS ARE PRESENT BEFORE BEGINNING INSTALLATION**

## Tools

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- Hole saw or punch
- Electric drill
- Cone drill
- 75 mm (3/16") drill bit
- Center punch
- De-burring tool / file
- Anti-corrosion metal treatment

**ON PERSONAL INSTALLS, THE COMPANY PROVIDES ALL THE TOOLS AND EQUIPMENT REQUIRED TO SUCCESSFULLY COMPLETE THE INSTALLATION. THE HOLES CAN BE CUT USING EITHER A HOLE SAW OR PUNCH.**

**PROFESSIONAL INSTALLATION IS RECOMMENDED.**

**WINDOW AND CUTTING GUIDE VARY BY WINDOW SIZE. DO NOT CUT HOLES BEFORE RECEIVING PACKAGE.**

## PPE Requirements

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- Safety glasses
- Working gloves (recommended)
- Comply with all site PPE requirements

**ENSURE THE INSTALLATION COMPLIES WITH SITE SAFETY AND PPE REQUIREMENTS. SAFETY GLASSES SHOULD BE WORN AT ALL TIMES. GLOVES ARE HIGHLY RECOMMENDED.**

## Field of View

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Below is a field of view matrix showing what can be seen through the ICI Round IR windows. This matrix is a guide only and is based on an IR camera that has a standard 24 degree lens with a lens diameter of 2 inches and a maximum viewing angle of 30 degrees (horizontal and vertical). All dimensions are in inches.

IR Target Distance	CP-50 FOV	CP-75 FOV	CP-100 FOV
8 inches	Hor=13.2 Ver=9.9	Hor=16.2 Ver=12.0	Hor=19.2 Ver=15.9
12 inches	Hor=18.0 Ver=13.5	Hor=21.0 Ver=16.5	Hor=24.0 Ver=19.5
18 inches	Hor=25.0 Ver=18.75	Hor=28.0 Ver=21.75	Hor=31.0 Ver=21.75
24 inches	Hor=31.5 Ver=24.0	Hor=34.5 Ver=27.0	Hor=37.5 Ver=30.0

## Transmission Rates

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The transmission rate of the IR window being installed is important. This information must be written on the window label that corresponds with the ICI product being installed.

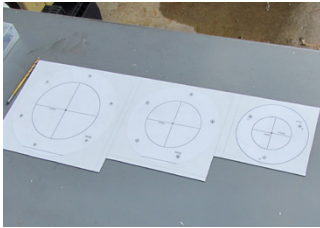
# Fixing Holes

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**WINDOW SHOULD BE INSTALLED ON A VERTICAL FLAT SURFACE OR EQUIVALENT LOCATION.**

**A.**

Apply the supplied cutting template to the side of the panel where the window is to be fitted.



**B.**

Mark the fixing holes and the center hole.



**C.**

Use a 5 mm (3/16) bit to drill the fixing holes and pilot hole for the chosen hole cutter.

Refer to the table for the number of holes to drill.



## Unit Fixing Holes

CP-50	3
CP-75	5
CP-100	6

**WINDOW AND CUTTING GUIDE VARY BY WINDOW SIZE. DO NOT CUT HOLES BEFORE RECEIVING PACKAGE.**

## D.

Cut the correct size hole using the preferred cutting method.

Refer to the table below which details the hole size required for each of the Round IR windows.



Unit	Size (mm)	Size (inches)
CP-50	50 mm	2
CP-75	75 mm	3
CP-100	100 mm	4

Recommended Hole Saw Details			
Unit	Champion Hole Saw (mm)	Steel (RPM)	St/Steel (RPM)
CP-50	CT5-2 (50)	200-500	120-225
CP-75	CT5-3 (75)	150-300	80-150
CP-100	CT5-4 (100)	100-200	60-120

\* **FOR BEST PERFORMANCE, WE RECOMMEND 1/2" CORDED POWER TOOLS.**

Recommended Hole Punch Details	
Unit	Size (mm)
CP-50	GREENLEE 730BB -2
CP-75	GREENLEE 730BB -3
CP-100	GREENLEE 730BB -

**DESIGN AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE**

**E**

Once the hole is cut to size, de-burr, remove any metal shavings and the remaining portion of the cutting template.



**F.**

Finally, treat all bare metal surfaces with a protective, anti-corrosion coating (paint, sealer, etc.). This will ensure th IR window seals are not affected by long term corrosion and protects the integrity of the panel.



## Fitting the Window

**A.**

Remove the back plate from the Round IR window; then, place the body of the unit, complete with seals, on the front of the panel.



**B.**

Place the back plate inside the panel and fit the screws through the back plate into the body of the window. Tighten screws to 1.2 Nm (10.6 in-lb). This equates to fully hand tight using a screwdriver.





## Labels and Instructions

Ensuring that Round IR window is correctly labeled is essential. Without the correct information, it will not be useful to its full effect. The ICI Round IR window is supplied with two labels: Instruction Label and Window Label.



### IR WINDOW INSTRUCTIONS FOR USE

**CAUTION: THIS DEVICE IS INCOMPLETE WITHOUT THE COVER FITTED**

1. Undo all four protective cover locking screws two complete turns and slide toggle bolts away from cover.
2. Rotate cover anti-clockwise.
3. Take thermographic image (Remember to record data from IR window: location, transmission rate, etc).
4. Rotate cover clockwise to locate cover in closed position.
5. Slide Toggle bolts into location grooves and fully tighten all four locking screws. (Min 0.2 Nm).

The Instruction Label should be placed next to the window and details the steps to be taken to ensure the unit is used correctly.

Location:	S80012	
IR Window No:	S80012-2	
Lens Material:	Platinum Polymer	
Transmission:	SW N/A	LW 0.48

Notes: Load side bus connections for distribution panel bus duct disconnect. "A" phase left, "B" phase middle, "C" phase right.

The Window Label allows the thermographer to note the number of targets, emissivity of the targets, transmission rate of the IR window, etc. The most common method of locating the targets required is by using the clock face method, i.e. bus bar connections at 4 o'clock, etc. An example of a completed label is shown below.

## About ICI / Contact

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ICI manufactures complete systems and software. We can provide complete engineering, software, and OEM solutions. Our Fortune 500 clients rely on us for infrared equipment and thermography training (which we offer through the Infrared Training Institute).

In addition to providing custom germanium, silica, and sapphire optics, we also build windows for enclosures, as well as custom pan and tilt units. We can even provide customizable explosion-proof systems.

Our knowledge and experience stems from years of using infrared imaging and temperature measurement instruments to provide solutions to: managers, engineers, scientists, inspectors and operators in space, power companies, medical, pulp and paper, food industry, research and development, and various process industries. You can see our products and services used in industrial, commercial, and government applications worldwide. Originally named Texas Infrared (still DBA), Infrared Cameras, Inc. has been in business since March, 1995.

Thank you for your dedicated and continued support.