Cornelius

XTREME ICE™

Owner / Operator Manual

IMPORTANT:

TO THE INSTALLER.

It is the responsibility of the Installer to ensure that the water supply to the dispensing equipment is provided with protection against backflow by an air gap as defined in ANSI/ASME A112.1.2-1979; or an approved vacuum breaker or other such method as proved effective by test.

Water pipe connections and fixtures directly connected to a potable water supply shall be sized, installed, and maintained according to Federal, State, and Local Codes.

THIS DOCUMENT CONTAINS IMPORTANT INFORMATION
This Manual must be read and understood before installing or operating this equipment

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TECHNICAL SERVICES

IMI Cornelius Inc.

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IMI CORNELIUS (UK) LTD

IMPORTANT SAFETY NOTES

- Always transport equipment in an upright position and never drag over rough floors or down steps.
- Locate the equipment on a firm, level surface and protect from physical damage. Never allow air vents/louvres to become blocked and do not place any non-specified items on top.
- Clean/sanitize equipment before use. Always follow procedures and safety precautions supplied by the manufacturers of sanitizing agents.
- Installation and maintenance must only be carried out by a trained person who is competent to make connections to water, electrical and/or compressed gas supplie(s). Local bye-laws/regulations must be followed.
- Connect to a correctly rated power socket, preferably protected by a safety cutout and easily accessible for isolation of the equipment. The equipment **must** be earthed.
- CO_2 cylinders must be secured in a vertical position and only connected to dispense equipment via a suitable pressure regulator. Check connections for leaks.
- Do not expose equipment to extremes of temperature, water spillage, spray, steam or high humidity or clean with a water jet.
- Switch off and unplug the unit during maintenance operations. Do not attempt to remove any protective covers.
- Regularly clean condensers and louvres with a soft brush or vacuum.
- There are no user serviceable items inside the equipment, if it malfunctions or suffers spillage or physical damage it must be switched off and unplugged until repairs can be carried out by a properly qualified and trained person.

REMARQUES IMPORTANTES POUR LA SECURITE

- Le matériel doit toujours être transporté dans le sens qui est indiqué sur l'emballage (flèches). Celui-ci ne doit jamais être traîné sur des surfaces inégales : escalier, trottoir, etc.
- Le matériel doit toujours être installé sur des surfaces stables et horizontales, et protégé de tous risques éventuels. Les grilles d'aération ne doivent jamais être obstruées. Aucun objet ne doit être posé sur le matériel.
- Avant la mise en service, le matériel doit être sanité en suivant les précautions d'usage et les normes d'utilisation du produit de sanitation indiqué par le fabricant et le constructeur.
- L'installation et l'entretien doivent être effectués par un service technique agréé et qualifié (eau, électricité, CO_2, etc...).
  Tous les raccordements doivent être effectués suivant les normes administratives locales et nationales.
- Le raccordement électrique doit être effectué sur une prise d'alimentation avec terre, protégé par un disjoncteur différentiel facilement accessible.
- Les bouteilles de CO_2 doivent être maintenues verticalement et retenues par un collier ou une chaîne métallique.
  Le mano-détendeur doit être conforme et approprié.
- Le matériel ne doit jamais être exposé:
  - à une température négative ou positive extrême,
  - à la projection d'eau, de vapeur ou d'autres produits,
  - à une humidité trop élevée.

  Celui-ci ne doit jamais être nettoyé avec un jet d'eau.
- Pendant les opérations journalières d'entretien, l'alimentation électrique doit être impérativement débranchée. Ne jamais enlever les carters de protection.
- Les condenseurs et aérations doivent être nettoyés avec une brosse douce ou un aspirateur.
- Le matériel doit être entretenu et réparé uniquement par un service technique agréé, et en aucun cas, le ou les utilisateurs ne doivent intervenir sur et dans le matériel. En cas de projection d'eau ou de vapeur, il est impératif de débrancher le matériel.

WICHTIGE SICHERHEITSHINWEISE

- Anlage stets aufrecht transportieren und niemals über unebene Böden oder Treppen ziehen.
- Anlage auf einer festen und ebenen Fläche aufstellen und vor Beschädigung schützen. Immer darauf achten, daß Entlüftungslöcher und Luftschlitze frei sind. Keine Gegenstände auf das Gerät stellen.
- Anlage vor dem Gebrauch säubern/desinfizieren. Immer den Anweisungen und Sicherheitsmaßnahmen der Hersteller von Reinigungsmitteln folgen.
- Der Aufbau und die Wartung darf nur von einem Fachmann für Wasser-, Strom- und/oder Druckgaszufuhr, durchgeführt werden. Örtliche Verordnungen und Bestimmungen müssen beachtet werden.
- An eine Steckdose mit entsprechender Voltzahl anschließen, vorzugsweise über eine Schmelzsicherung und mit leichtem Zugang für die Isolierung des Geräts. Das Gerät muß geerdet werden.
- CO_2-Zylinder müssen in vertikaler Position angebracht und dürfen nur über einen geeigneten Druckregler an Zapfanlagen angeschlossen werden. Anschlüsse auf Undichtigkeiten überprüfen.
- Das Gerät nicht extremen Temperaturen, Wasserspritzern, Dampf oder großer Feuchtigkeit ausssetzen oder mit einem Dampfstrahler reinigen.
- Während Wartungsarbeiten das Gerät ausschalten und den Netzstecker ziehen. Nicht versuchen, Schutzabdeckungen zu entfernen.
- Kühler und Luftschlitze regelmäßig mit einer weichen Bürste oder einem Staubsauger reinigen.
- Es gibt keine Teile im Gerät, die vom Benutzer gereinigt werden können. Funktioniert es nicht mehr, ist durch Wasser oder sonst wie beschädigt, muß es ausgeschaltet und der Netzstecker gezogen werden. Reparaturen dürfen nur von einem qualifizierten Fachmann durchgeführt werden.

VIGTIGE BEMÆRKNINGER OM SIKKERHED

- Udstyret bør altid transporteres i opret stilling og må ikke trækkes henover ujævne gulve eller nedad trapper.
- Udstyret bør anbringes på en fast, jævn overflade og beskyttes mod fysisk skade. Luftventilationen/spjældet må aldrig blive tilstoppet, og ikke-specificerede genstande må ikke anbringes ovenpå den/det.
- Udstyret bør rengøres/renses før brug. Procedurer og sikkerhedsforanstaltninger, som leveres af producenterne af rensningsmidlerne, bør altid følges.
- Installation og vedligeholdelse må kun foretages af en faglært person, som er kvalificeret til at foretage forbindelser til vand- og elektricitetsforsyninger og/eller forsyninger for komprimeret gas. De lokale vedtægter/reguleringer skal følges,
- Forbindes til en korrekt dimensioneret strømforsyningskontakt, fortrinsvis ved en sikkerhedsstrømafbryder, og så der let kan fås adgang til udstyret med henblik på isolering af det. Udstyret **skal** være jordforbundet.
- CO_2-cylindere skal fastgøres i opret stilling og må kun forbindes til automatudstyr via en passende trykregulator. Forbindelserne bør efterses for utætheder.
- Udstyret må ikke udsættes for meget høje/lave temperaturer, vandspild, tilstænkning, damp eller høj fugtighed, og det må heller ikke rengøres med en vandstråle.
- Enheden skal slukkes, og stikket skal tages ud af stikkontakten i forbindelse med vedligeholdelsesfunktioner. Forsøg ikke at aftage nogle af de beskyttende dæksler.
- Kondensatorer og spjæld skal rengøres regelmæssigt med en blød børste eller støvsuges.
- Der findes ingen genstande inden i udstyret, som kan efterses af brugere, og hvis udstyret udviser maskinfejl eller spild eller lider fysisk skade, skal det slukkes, og stikket skal tages ud af stikkontakten, indtil det kan blive repareret af en rigtigt kvalificeret og faglært person.

NOTE IMPORTANTI PER LA SICUREZZA

- Trasportare sempre l' apparecchiatura in posizione verticale e non trascinarla su pavimenti ruvidi o giù per le scale.
- Ubicare l'apparecchiatura su una superficie solida orizzontale e proteggerla contro danni fisici. Evitare che gli sfiati per l' aria o le feritoie di ventilazione vengano bloccati e non porvi sopra alcun oggetto non specifico.
- Pulire e sanificare l'apparecchiatura prima dell' uso. Seguire sempre le procedure e le precauzioni per la sicurezza fornite dai fabbricanti dei prodotti sanificanti.
- L' installazione e la manutenzione devono venire effettuate soltanto da una persona addestrata che sia competente nel fare collegamenti ai servizi di acqua, di elettricità e/o di gas compresso. Occorre rispettare i regolamenti e le leggi locali.
- Collegare ad una presa di corrente a voltaggio e amperaggio adeguati, preferibilmente tramite un interruttore automatico di sicurezza, e facilmente accessibile per poter isolare l' apparecchiatura. L' apparecchiatura **deve** avere il collegamento a terra.
- Le bombole di CO_2 devono venire assicurate in posizione verticale e collegate solo per alimentare l' apparecchiatura tramite un adatto regolatore di pressione. Controllare che i raccordi non abbiano perdite.
- Non esporre l' apparecchiatura a temperature estreme, versamenti di acqua, spruzzi, vapore o alta umidità, e non pulire con getti d' acqua.
- Spengere l' apparecchiatura e staccare la presa di corrente durante le operazioni di manutenzione. Non cercare di togliere qualsiasi coperchio protettivo.
- Pulire regolarmente i condensatori e le feritoie con una spazzola morbida o con un aspirapolvere.
- All' interno dell' apparecchiatura non ci sono parti che possano venire riparate dall' utente. Se l' apparecchiatura funziona male o ha avuto perdite o danni fisici, deve venire spenta e staccata dalla presa di corrente fino a che le riparazioni non sono state effettuate da una persona opportunamente qualificata e addestrata.

SUOMI - TÄRKEITÄ TURVALLISUUSOHJEITA

- Muista aina kuljettaa laitteet pystyasennossa äläkä koskaan vedä niitä epätasaista lattiaa pitkin tai alas portaita.
- Sijoita laitteet lujalle, tasaiselle pinnalle ja suojaa fyysistä vaurioitumista vastaan. Älä koskaan salli ilmareikien/tuuletusrakojen tukkeutua äläkä aseta minkäänlaisia tarpeettomia esineitä niiden päälle.
- Puhdista/desinfioi laitteet ennen käyttöä. Noudata aina valmistajan desinfiointiaineiden mukana toimitettuja käyttö- ja turvallisuusohjeita.
- Asennus ja huolto on annettava vain sellaisen asianmukaisen pätevyyden omaavan henkilön suorittamaksi, joka pystyy suorittamaan kytkennät vesi-, sähkö- ja/tai painekaasuverkkoon/verkkoihin. On noudatettava paikallisia sääntöjä/säännöksiä.
- Kytke oikea-arvoiseen sähkörasiaan, mieluummin sellaiseen, jossa on turvakytkin ja helposti saavutettava laitteen eristys. Laite **täytyy** maadoittaa.
- CO_2-sylinterit on kiinnitettävä turvallisesti pystysuoraan asentoon ja kytkettävä jakelulaitteeseen vain sopivan painesäätimen avulla. Tarkista kytkennät mahdollisten vuotojen varalta.
- Älä anna laitteeseen kohdistua äärimmäisiä lämpötiloja, vesivaurioita, suihketta, höyryä tai liiallista kosteutta äläkä suorita puhdistusta vesiruiskua käyttämällä.
- Kytke virta pois ja irrota laite sähköverkosta huoltotoimien aikana. Älä yritä poistaa suojuksia.
- Puhdista jäähdyttimet ja tuuletusaukot säännöllisesti pehmeällä harjalla tai imurilla.
- Laitteen sisällä ei ole käyttäjän huoltoa tarvitsevia osia; jos se ei toimi kunnolla tai jos esiintyy vuotoja tai fyysisiä vaurioita, on virta kytkettävä pois ja laite irrotettava sähköverkosta siksi, kunnes pätevä ja asianmukaisesti koulutettu henkilö on suorittanut tarvittavat korjaukset.

BELANGRIJKE INFORMATIE i. v. m. VEILIGHEID

- Verplaats het apparaat altijd rechtop. Sleep het nooit over de vloer of op een trap maar til het op.
- Plaats het apparaat op een hard, vlak oppervlak, beschermd tegen fysieke beschadiging. Zorg dat ventilatieopeningen of jaloezieën nooit verstopt worden, en plaats geen vreemde voorwerpen boven op het apparaat.
- Maak het apparaat schoon voor gebruik. Volg bij de reiniging steeds de procedures en veiligheidsvoorschriften die vermeld worden door de producenten van de gebruikte reinigingsmiddelen.
- De installatie en het onderhoud van het apparaat dient te gebeuren door een daartoe opgeleid persoon, die over de nodige deskundigheid beschikt om de aansluitingen aan waterleiding, elektriciteit en/of leidingen voor gas onder druk tot stand te brengen. Daarbij dienen de plaatselijke voorschriften en reglementen te worden nageleefd.
- Sluit het apparaat aan op een stopcontact van de correcte spanning, bij vookeur met een veiligheidsschakelaar en gemakkelijk toegankelijk, zodat het apparaat kan worden geïsoleerd. Het apparaat moet worden geaard.
- CO_2-cylinders moeten verticaal opgesteld worden bevestigd, en mogen uitsluitend aan verdeeluitrusting worden gekoppeld via een geschikte drukregelaar. Controleer de verbindingen op lekken.
- Het apparaat niet blootstellen aan extreme temperaturen, noch aan gemorst of verstoven water, stoom of een hoge vochtigheidsgraad. Het apparaat niet met een hoge druk waterstraal reinigen.
- Het apparaat uitschakelen en de stekker uit het stopcontact halen tijdens onderhoudswerkzaamheden. Niet proberen de beschermkappen weg te nemen.
- De koelers (condensors) en jaloezieën regelmatig schoonmaken met een zachte borstel of met behulp van een stofzuiger.
- Binnen in het aparaat bevinden zich geen onderdelen die de gebruiker zelf kan onderhouden of herstellen. Als het apparaat defect is, er een vloeistof op werd gemorst of het op een andere wijze fysiek werd beschadigd, moet het worden uitgeschakeld en moet de stekker uit het stopcontact worden gehaald tot de noodzakelijke herstellingen kunnen worden uitgevoerd door een ter zake opgeleid en deskundig persoon.

VIKTIGA SÄKERHETSANVISNINGAR

- Transportera alltid utrustningen upprättstående och släpa den aldrig över ojämna golv eller ner för trappor.
- Placera utrustningen på en stadig och jämn yta och skydda den mot fysiska skador. Luftningshål/ventilationsöppningar får aldrig blockeras. Placera inte obehöriga föremål på utrustningen.
- Rengör utrustningen innan den används. Följ alltid de rutiner som rengöringsmedelstillverkarna rekommenderar och beakta alltid deras säkerhetsföreskrifter.
- Installations- och underhållsarbete får endast utföras av utbildade personer, med erforderlig kompetens för att ansluta utrustningen till vatten-, el- och/eller gasnäten. Lokala föreskrifter måste beaktas.
- Anslut till eluttag med rätt typ av ström. Utrustningen **måste** jordas.
- CO_2-tuber måste säkras i vertikalt läge och får endast anslutas till utrustning via lämplig tryckregulator. Kontrollera anslutningarna med avseende på läckage.
- Utsätt inte utrustningen för extrema temperaturer, vattenspill, spray, ånga eller hög luftfuktighet och rengör den inte genom vattenbestrålning.
- Stäng av enheten och koppla bort den under underhållsarbete. Tag aldrig bort några skyddskåpor.
- Rengör kondensorerna och ventilationsöppningarna regelbundet med en mjuk borste eller med vakuum.
- Det finns inga komponenter inuti enheten som användaren själv kan utföra service på. Om det blir fel på utrustningen, eller om den utsätts för spill eller fysiska skador, måste den stängas av och bortkopplas tills dess att reparationer kan utföras av person med de kvalifikationer och den utbildning som erfordras.

NOTAS IMPORTANTES SOBRE SEGURIDAD

- Transportar siempre el equipo en posición vertical y no arrastrarlo nunca sobre suelos rugosos o escaleras abajo.
- Colocar el equipo sobre una superficie firme y horizontal y protegerlo de daños físicos. No dejar que se bloqueen las aberturas y rejillas de ventilación y no colocar ningún artículo no especificado encima del equipo.
- Limpiar/desinfectar el equipo antes de su uso. Seguir siempre los procedimientos y precauciones de seguridad suministrados por los fabricantes de productos desinfectantes.
- La instalación y el mantenimiento sólo deben ser realizados por una persona entrenada que sea competente para conectarlo a los suministros de agua, electricidad y aire comprimido. Deben seguirse las normas y disposiciones locales.
- Conectarlo a una toma de corriente de potencia adecuada, preferiblemente por medio de un cortacircuitos de seguridad que sea fácilmente accesible para poder aislar el equipo. El equipo **debe** estar puesto a tierra.
- Los cilindros de CO_2 deben estar firmemente sujetos en posición vertical y sólo deben conectarse al equipo distribuidor a través de un regulador de presión adecuado. Comprobar que las conexiones no tengan fugas.
- No exponer el equipo a temperaturas extremas, derrames de agua, pulverizaciones, vapor o humedad elevada, ni limpiarlo con chorro de agua.
- Apagar y desenchufar la unidad durante las operaciones de mantenimiento. No intentar desmontar ninguna de las tapas protectoras.
- Limpiar con regularidad los condensadores y las rejillas con un cepillo suave o un aspirador.
- En el interior no hay componentes a los que el usuario pueda dar servicio. Si funciona mal o ha sufrido derrames o daños físicos, la unidad debe apagarse y desenchufarse hasta que una persona debidamente calificada y entrenada pueda realizar su reparación.

PRECAUÇÕES DE SEGURANÇA IMPORTANTES

- Ao transportar o equipamento, mantenha-o sempre na posição vertical. Nunca arraste o equipamento sobre pavimentos irregulares ou ao descer degraus.
- Coloque o equipamento sobre uma superfície firme e plana, protegido contra danos materiais. Não permita que os respiradouros/grelhas figuem obstruídos nem coloque qualquer objecto não especificado sobre o equipamento.
- Limpe/sanitize o equipamento antes de o utilisar. Siga sempre os procedimentos e precauções de segurança indicados pelos fabricantes dos produtos de sanitização.
- A instalação devera ser efectuada por uma pessoa devidamente qualificada para fazer os ligações à água e à electricidade.
- A manutenção devera também ser efectuada por pessoal qualificado para o manuseamento de gás refrigerante. Os regulamentos e normas locais deverão ser respeitados.
- Ligue a uma tomada de potência adequada, de preferência por meio de um interruptor de segurança e com facilidade de acesso para o isolamento do equipamento. O equipamento **deve** ser ligado à uma tomada com ligação à terra.
- Os cilindros de CO_2 devem ser fixos na posição vertical e ligados ao equipamento dispensador através de um regulador de pressão adequado. Examine as ligações para certificar-se de que não há fugas.
- Não exponha o equipamento a temperaturas extremas, derramamento de água, borrifos, vapor ou humidade excessiva. Não limpe com jacto de água.
- Desligue o interruptor e retire a ficha da tomada durante o trabalho de manutenção. Não tente retirar as tampas protectoras.
- Limpe os condensadores e grelhas regularmente com uma escova macia ou aspirador.
- O equipamento não contém no seu interior nenhuma peça que possa ser reparada pelo utilizador. Se o equipamento apresentar falha no seu funcionamento, sofrer algum dano material ou derramamento, desligue o interruptor e retire a ficha da tomada até que um técnico devidamente qualificado e formado possa encarregar-se das reparações.

ΣΗΜΑΝΤΙΚΕΣ ΠΛΗΡΟΦΟΡΙΕΣ ΑΣΦΑΛΕΙΑΣ

- Μεταφερετε την συσκευη παντοτε ορθια και αποφευγετε το συρσιμο σε τραχειες επιφανειες και σκαλες.
- Τοποθετησατε την συσκευη σε σταθερη και επιπεδη επιφανεια και προστατεψατε την απο φυσικη φθορα. Βεβαιωθειτε οτι οι τρυπες και σχισμες εξαερισμου ειναι παντα ελευθερες και οτι κανενα αντικειμενο δεν τοποθετειται στην ανω επιφανεια της συσκευης.
- Καθαρισατε/απολυμανατε την αποσκευη πριν την χρηση. Ακολουθειστε παντοτε τις διαδικασιες και τα μετρα ασφαλειας που παρεχονται απο τους κατασκευαστες μεσων απολυμανσης.
- Η εγκατασταση και συντηρηση πρεπει να εκτελουνται μονο απο ατομα εμπειρα και ειδικευμενα στις συνδεσεις νερου, ηλεκτρισμου και/η παροχης συμπιεσμενου αεριου. Παντα πρεπει να εφαρμοζονται οι τοπικοι κανονισμοι και διαταξεις.
- Συνδεσατε σε πριζα με καταλληλη ηλεκτρικη ταση, εξοπλισμενη κατα προτιμηση με διακοπτη ασφαλειας και τοποθετημενη σε προσιτη θεση για ευκολη αποσυνδεση της συσκευης. Η συσκευη πρεπει να ειναι γειωμενη.
- Οι κυλινδροι διοξειδιου του ανθρακα (CO_2) πρεπει να ασφαλιζονται σε καθετη θεση και να συνδεονται με τον διανομεα μονο μεσω ενος καταληλου ρυθμιστη πιεσεως. Ελεγξατε τις συνδεσεις για πιθανες διαρροες.
- Μην εκτιθετε την συσκευη σε ακρες θερμοκρασιες, υδρορροες, ατμους η υψηλη υγρασια και αποφυγετε την χρηση νερου για τον καθαρισμο της.
- Σβηστε την συσκευη και αποσυνδεσετε την πριζα κατα την διαρκεια της εργασιας συντηρησης. Μην προσπαθησετε να αφαιρεσετε τα προστατευτικα καλυματα.
- Καθαριζετε τακτικα τους ψυκτηρες και τις σχισμες εξαερισμου με μαλακη βουρτσα η ηλεκτρικη σκουπα.
- Στο εσωτερικο της συσκευης δεν υπαρχουν τμηματα που μπορουν να συντηρηθουν απο τον χρηστη. Σε περιπτωση που δεν λειτουργει σωστα, υγρανθει η φθαρει, η συσκευη πρεπει να σβηστει και η πριζα να αποσυνδεθει, εως οτου επισκευασθει απο ειδικευμενο και εμπειρο τεχνικο.

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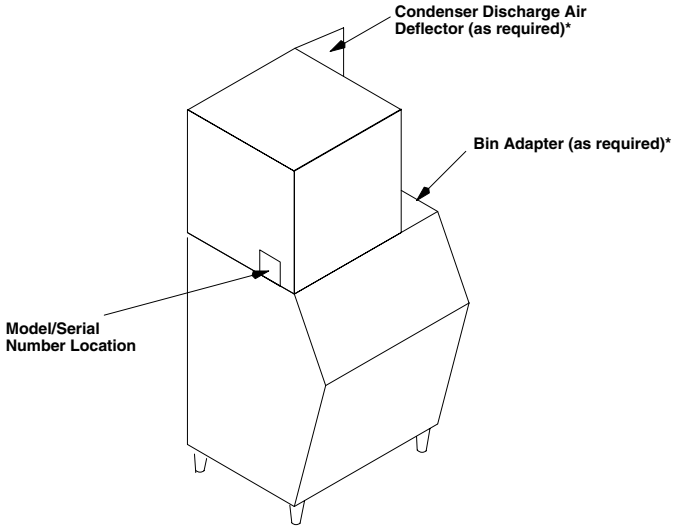
MODEL AND SERIAL LOCATION

XTREME ICE MACHINE



*Bin adapters and condenser discharge air deflector may be equipped depending on your location or the size of the storage bin.

Record the model number and the serial number of your ice equipment. These numbers are required when requesting information from your local dealer/distributor/service company.

Model Number –	Date Installed –
Serial Number –	Purchased From -

SERIAL NUMBER EXPLANATION

63 A 01 01 BC 101

- 101 – Sequential Number
- BC – Product Code (PC) – Ice Maker
- 01 – Week of Manufacture – First week of the year
- 01 – Year of Manufacture – 2001
- A – Control Code (Revision Level)
- 63 – Manufacturing Location – Mason City

SPECIFICATIONS

The following table contains equipment specification information for the Ice Machines.

Model	XAC 322/330	XWC 322/330	XAC 522/530	XWC 522/530	XRC 522/530	XAC 630	XWC 630	XRC 630	XAC 830	
UNIT Volts Phase Hertz No. Wires	115 1 60 2+Ground					230 1 60 2+Ground				
MIN. CIRCUIT Amps	20					15			20	
MAX. FUSE SIZE Amps	20					15			20	
REFRIGERANT Type Weight (oz) Weight (g)	R404a 19 539	R404a 15 426	R404a 25 709	R404a 23 652	R404a 135 3,827	R404a 40 1,134	R404a 35 992	R404a 170 4,820	R404a 42 1,191	
COMPRESSOR LRA RLA	58.8 9.2		68 11.9			40.6 6.9			60 8.9	
CONDENSER FAN MOTOR Amps Watts	1.7 50	NA NA	1.7 50	NA NA	NA NA	1.1 75	NA NA	NA NA	1.1 75	
WATER PUMP Amps Watts	0.7 20									

Model	XWC 830	XRC 830	XAC 1030	XWC 1030	XRC 1030	XAC 1230	XWC 1230	XRC 1230	XWC 1230 E50	XAC 1444 E50
UNIT Volts Phase Hertz No. Wires	230 1 60 2+Ground								220 1 50 2+Ground	
MIN. CIRCUIT Amps	20									30
MAX. FUSE SIZE Amps	20									30
REFRIGERANT Type Weight (oz) Weight (g)	R404a 33 936	R404a 170 4,820	R404a 42 1,191	R404a 33 936	R404a 170 4,820	R404a 49 1,191	R404a 45 1,276	R404a 210 5,954	R404a 45 1,276	R404a 67 1,900
COMPRESSOR LRA RLA	60 8.9		90 12			96 13.5	84 12.2		76 13.0	96 21.5
CONDENSER FAN MOTOR Amps Watts	NA NA	NA NA	1.2 (2) 60 (2)	NA NA	NA NA	1.2 (2) 60 (2)	NA NA	NA NA	NA NA	0.6 1/15hp
WATER PUMP Amps Watts	0.7 20									

Model	XAC 1444	XWC 1444	XRC 1444	XAC 1844	XWC 1844	XRC 1844	XAC 322 E50	XAC 330 E50	XAC 522 E50	XAC 530 E50
UNIT										
Volts	230						220			
Phase	1						1			
Hertz	60						50			
No. Wires	2+Ground						2+Ground			
MIN. CIRCUIT										
Amps	30			30			10		15	
MAX. FUSE SIZE										
Amps	30			40			10		15	
REFRIGERANT										
Type	R404a	R404a	R404a	R404a	R404a	R404a	R404a	R404a	R404a	R404a
Weight (oz)	67	36	250				19	19	25	25
Weight (g)	1900	1021	7088				539	539	709	709
COMPRESSOR										
LRA	108			179			26.3		31	
RLA	17			28			3.9		5.6	
CONDENSER FAN MOTOR										
Amps	0.6			2.7			1.75	1.75	1.75	1.75
Watts	1/15 HP	NA	NA	1/3HP	NA	NA	50	50	50	50
		NA	NA		NA	NA				
WATER PUMP										
Amps	0.7									
Watts	20									

Model	XAC 630 E50	XAC 830 E50	XAC 1030 E50	XAC 1230 E50	XAC 1844 3PH	XWC 1844 3PH	XRC 1844 3PH	XWC 522/530 E60	XWC 522 E50	XAC 522/530 E60
UNIT										
Volts	220				230			230	220	230
Phase	1				3			1	1	1
Hertz	50				60			60	50	60
No. Wires	2+Ground				3+Ground			2+Ground	2+Ground	2+Ground
MIN. CIRCUIT										
Amps	15	20			20			15		15
MAX. FUSE SIZE										
Amps	15	20			20			15		15
REFRIGERANT										
Type	R404a	R404a	R404a	R404a	R404a	R404a	R404a	R404a		R404a
Weight (oz)	40	42	42	49				23		26
Weight (g)	1134	1191	1191	1389				652		737
COMPRESSOR										
LRA	34	54	83	76	135			34	31	34
RLA	5.5	8.1	11.3	13	17			6.8	5.6	6.8
CONDENSER FAN MOTOR										
Amps	1.1	1.1	1.2(2)	1.2(2)	2.7	NA	NA	NA	NA	1.2
Watts	75	75	60(2)	60(2)	1/3HP	NA	NA	NA	NA	60
WATER PUMP										
Amps	0.7									
Watts	20									

NA= Not applicable

Important: All product supply voltage specifications are –5%/+10% for proper component operation.

GENERAL

FREIGHT DAMAGE CLAIMS PROCEDURE

The deliverer of your equipment (freight company, distributor or dealer) is responsible for loss or damage of your shipment. All claims must be filed with the deliverer of your equipment. Please follow the steps below to determine if your shipment is satisfactory or if a claim must be filed:

1. Check the number of products delivered against the number of products listed on the delivery receipt. Should the totals not match, have the driver note all errors on both copies and both you and the driver sign and date said notation.
2. Inspect all cartons for visible damage. Open and inspect as required before the driver leaves and have him or her note any damage on the receipts. All damaged claims must be inspected within 15 days of delivery. Notify your carrier immediately if concealed damage is found after delivery.
3. Should concealed damage be found when product is unpacked, retain the packing material and the product and request an inspection from the deliverer.
4. All claims for loss or damage should be filed at once. Delays in filing will reduce the chance of achieving a satisfactory resolution to the claim.

TECHNICAL SPECIFICATIONS

- **Cube Size**: 5/8”W X 7/8”H X 7/8”D
- **Ambient Temperature**: 50°F/10°C – 100°F/38°C
- **Water Temperature**: 50°F/10°C – 90°F/32°C
- **Water Pressure**: 20–80 psi
- **Maximum Fuse Size**: See Nameplate
- **Circuit Amp**: See Nameplate
- **Refrigerant Type**: R–404a
- **Refrigerant Charge**: See Nameplate

Microban

IMI Cornelius Ice Maker Product includes Microban® Built–In Product Protection to inhibit the growth of odor and stain causing bacteria, mold, and mildew. This will improve the units performance between cleaning, but should not exclude the standard cleaning process. Please refer to the Maintenance section of this manual for proper cleaning procedures. Microban is a registered trademark of the Microban Products company, Huntersville NC 28078.

INSTALLATION INSTRUCTIONS

Installation and start-up of the equipment should be performed by the distributor or the dealer's professional staff.

LOCATION OF EQUIPMENT

For maximum performance the location should be away from heat sources such as ovens, direct sunlight, hot air discharge, etc.

To reduce cost of maintenance and loss of efficiency, avoid placing air-cooled equipment in areas where grease, flour and other airborne contaminants are present. Allow a minimum of 6″ (15.24 cm) clearance at the rear and right side for proper air circulation. Restricted air circulation will affect the efficiency and required maintenance of the product.

IMPORTANT: Never operate your equipment in room temperature below 50°F (10°) or above 100°F (38°C). Should the location of your product ever be exposed to freezing temperatures, it must be shut down and winterized.

Baffle Installation

NOTE: The baffle is only used on the 1030, 1230, 1444, and 1844.

The baffle must be used when the right hand side of the icemaker is installed in a corner. This will prevent discharge air from recirculating to the condenser.

1. Loosen three screws, as shown in Fig. 1.
2. Install baffle, as shown in Fig. 1. with paper towards the front of the unit.
3. Tighten the three screws.

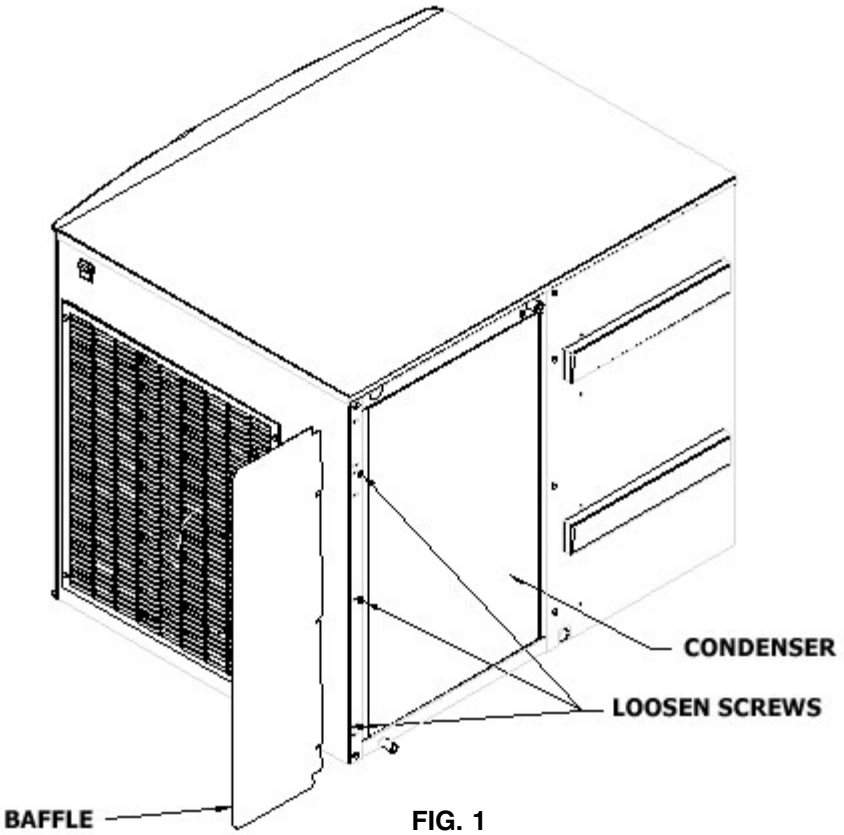


FIG. 1

EQUIPMENT SET-UP

The following steps refer to the set-up of the ice bin and the cuber:

1. Remove the bin from its carton, place it on its back and install the legs into the bottom of the bin. Bins must be installed on legs or sealed to the floor with RTV-732 sealant.
2. Set the bin up on its legs. Place the bin in its final location and level it with the adjustable feet in the legs.

NOTE: It is critical that the unit be level to ensure adequate ice production.

3. Unpack the cuber from its carton, and set in place on the bin and adjust as required. **Leave all panels on the cuber until it is set in place on the dispenser or bin.**
4. Remove all internal packing from the cuber. Remove tape from evaporator curtain.

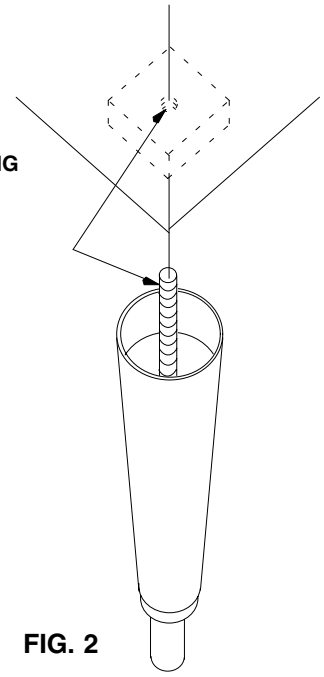


FIG. 2

FIG. 3

NOTE: Bin adapter and condenser air baffles may be required in certain installations.

DISPENSER INSTALLATION

1. The proper cuber/dispenser installation package should be ordered. This package will include gasket material, and hold-down bracket, and bin stat.
2. RTV applications (See Fig. 2 above). If the ice bin is full, new ice will not be able to drop. Instead it blocks the evaporator curtain open and no additional ice is made. This new ice may start to melt and the resulting liquid can leak out of the joint between the ice maker and bin. To prevent this problem, seal the joint with food grade silicon sealant.
3. Install bin thermostat (Part Number 631500074).

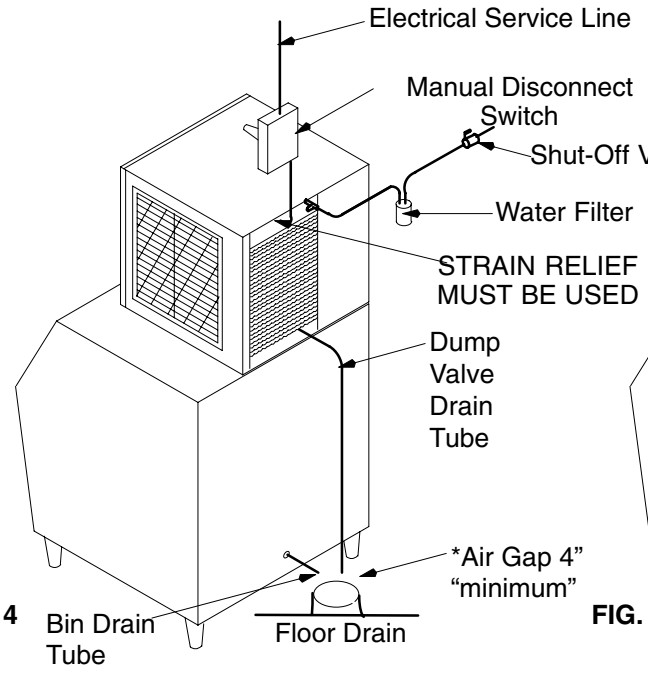


FIG. 4

AIR-COOLED MODELS

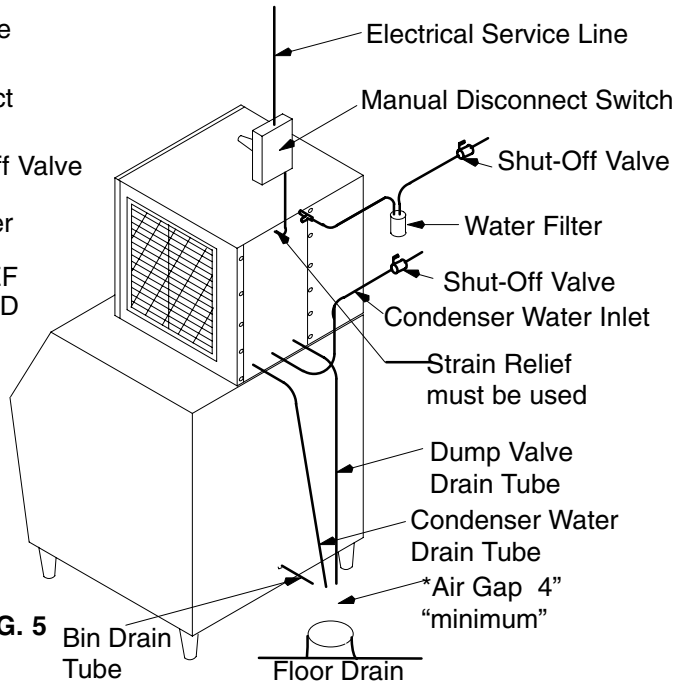


FIG. 5

WATER-COOLED MODELS

*** An air gap of at least twice the diameter of the water supply inlet plus a minimum of 1" (25 mm) must exist between the floor drain and drain tube.**

Note: Leave all panels on the cuber until it is in place on the bin.

PLUMBING CONNECTIONS

1. All plumbing lines and connections must conform to local and national plumbing codes.
2. Line shut-off valves must be located in supply water lines for cuber and condenser if product is water-cooled. Water supply to water-cooled condenser must include a stand-pipe to prevent "water hammer".
3. Should your local water supply quality require the installation of a water filter system, consult your local distributor or dealer for proper size required.
4. Water supply pressure must not be lower than 20 PSI (1.37 BAR), nor should it exceed 80 PSI (5.516 BAR).

NOTE: Water filters larger then 5 microns do not give proper protection. Water pressures above 80 PSI (5.516 BAR) will destroy the filter.

DRAIN LINES: Bin and cuber drain lines must never be connected together and must be vented.

NOTE: Always flush inlet water lines 1–2 minutes before connecting to Ice Maker.

ELECTRICAL

1. All wiring and connections must conform to national and local electrical codes.
2. Wire size and circuit protection must conform to specifications and cuber must be on a separate electrical circuit.
3. Strain relief connectors must be used at the junctions box of the control box and the cuber.
4. Cuber must be grounded by the control box ground screw or other method for intentional safety grounding that meets code requirements.
5. A manual disconnect in a convenient location to the cuber must be installed.

NOTE: See Remote Install Instructions in the Xtreme Service and Training Manual (TP00952).

NOTE: All HP-62 (R404A) ice machines have a voltage range of –5%, +10% from the serial plate rating.

INSTALLATION CHECK POINTS

1. ☐ Has bin and cuber been leveled and sanitized?
2. ☐ Does electrical and plumbing meet code requirements?
3. ☐ If water-cooled, are inlet and drain connections to condenser correct to prevent “water hammer”?
4. ☐ Are drain lines separate and vented?
5. ☐ Is there 6″ clearance on all sides and top for proper air circulation?
6. ☐ Does the water curtain move freely, and does the inlet solenoid valve shut off incoming water to the water pan?
7. ☐ Has the unit been properly sealed to the bin or dispenser?

NOTE: A 6” top clearance will improve service accessibility.

START UP SEQUENCE

1. ☐ Check all connections.
2. ☐ Turn on the main power switch, the red LED will flash (6) times then be on steady for (4) seconds.
3. ☐ The unit will go through a 45 second hot gas defrost to remove any ice on the evaporator.

NOTE: If there is a very large slab of ice on the evaporator you will need to push the manual harvest button to remove it.

4. ☐ If the water pan is empty, the unit will go through a fill cycle.
5. ☐ There will be approximately a (45) second evaporator pre chill, then the water pump will start, and the freeze cycle begins.

PREVENTATIVE MAINTENANCE SEQUENCE

The installation is not complete until you are sure the owner–operator understands the cuber operation and his or her responsibility of preventative maintenance.

Does the owner–operator know:

1. ☐ Location of electrical disconnect switch and water shut–off valves?
2. ☐ How to start and/or shut down the product, clean and sanitize it?
3. ☐ Bin full operation and reset operation of high pressure cutout (water–cooled and remote products only)?
4. ☐ How to clean the condenser and fan blade?
5. ☐ Whom to call for product information and/or service?

NOTE: CONDENSER SENSOR USED ONLY ON A/C UNITS. 1.8K ohm RESISTER USED ONLY ON W/C & R/C UNITS.

OPERATION

UNIT SELECTION

1. The unit selection dip switches tell the microprocessor the correct water level difference for harvest and the number of proximity switch circuits to monitor.
2. The unit selection dip switches are a series of 3 switches that can be placed in either the ON or OFF position.
3. The following list shows the dip switch settings for each model:

NOTE: The unit selection switches are preset at the factory to the correct model. Use the chart below if the control is replaced.

Model	Switch 1	Switch 2	Switch 3	Proximity Switch Circuits
500	ON	OFF	OFF	1
300	OFF	OFF	OFF	1
600/800/1000	OFF	ON	OFF	1
1200	ON	ON	OFF	2
1400/1800	OFF	OFF	ON	2

NORMAL OPERATIONS

1. Start up sequence.
2. Secondary start up.
3. Dump cycle.
4. Water fill cycle.
5. Pre chill cycle.
6. Freeze cycle.
7. Harvest cycle.
8. Continue with the dump cycle.
9. Fan cycle runs continuously after the secondary start up (88–100°F).
10. The safety features are monitored during the proper cycle.

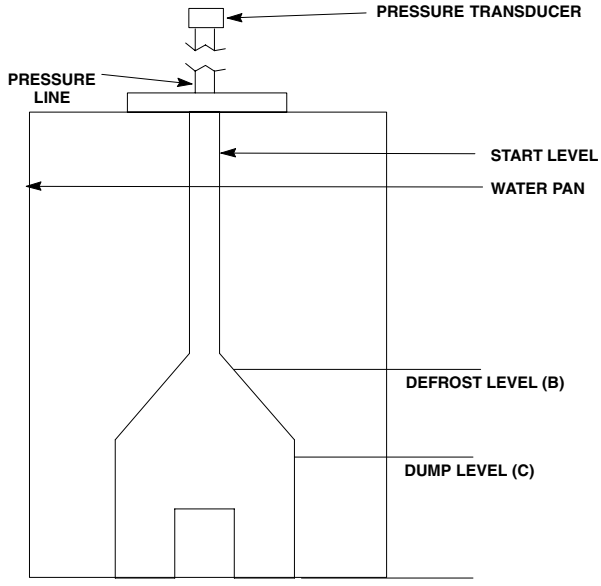


FIG. 6

1. During fill, water level rises to (A).

2. During Ice Product cycle, water level lowers to (B). Defrost cycle initiated.

3. During Defrost cycle, water level lowers to (C).

4. When Proximity Switch(es) close, fill valve opens and water level rises to (A).

START UP SEQUENCE (PRIMARY)

1. Check all connections.
2. Turn on the main power switch, the red LED will flash (6) times, then be on steady for (4) seconds.
3. The unit will go through a 45 second hot gas defrost to remove any ice that might be on the evaporator.

NOTE: If there is a very large slab of ice on the evaporator you will need to push the manual harvest button to remove it.

4. If the water pan is empty, the unit will go through a fill cycle.
5. There will be approximately a (45) second evaporator pre chill, then the water pump will start, and the freeze cycle begins.

SECONDARY START UP

1. Compressor starts after ERROR LED extinguishes, and the green COMP LED turns on.
2. Compressor runs continuously after secondary start up sequence.
3. Hot gas valve opens for a 45 second period.
4. Green GAS LED is on when the hot gas valve opens.
5. After 45 seconds, the hot gas valve de–energizes.

NOTE: If there is a very large slab of ice on the evaporator you will need to push the manual harvest button to remove it.

DUMP CYCLE

1. Dump valve opens.
2. Green DUMP LED is on when the dump valve energizes.
3. If the water level is not at the high level the fill valve opens.
4. The green FILL LED is on when the fill valve energizes.
5. If the water level is below the minimum level the water pump remains off.
6. Once the water is a above the minimum level the water pump turns on.
7. The green PUMP LED is on when the water pump is on.
8. After a 15 second flush cycle the fill valve de–energizes.
9. The water pump turns on to drop the water level to the minimum level.

WATER FILL CYCLE

1. The fill valve opens.
2. The green FILL LED is on when the fill valve energizes.
3. Once the water level reaches the maximum level the fill valve de–energizes.

NOTE: During the initial filling of the water pan, air is captured inside the pressure sensor pick up. When the pressure inside, the pressure sensor pick up rises to a predetermined value, the pressure transducer shuts off the water fill valve and starts the pre chill cycle then the freeze cycle.

PRE CHILL CYCLE (300's, 500's, 600's, 800's, 1000's, and 1200's)

1. The water pump turns on 45 seconds into the cycle.
2. After another 45 seconds, the fill valve turns on.
3. Once the water level reaches the maximum level the fill valve de–energizes.

PRE CHILL CYCLE (1400's and 1800's)

1. After the water fill cycle is complete, the water pump turns on.
2. When the water temperature reaches 40 degrees F, the pump turns off.
3. After one minute, the pump comes back on.
4. After another ten seconds, the fill valve opens.
5. Once the water level reaches the maximum level, the fill valve closes.

FREEZE CYCLE

1. Ten seconds after the fill valve turns off, the microprocessor records the water level.
2. Using the recorded high water level, the calibration level and the ice thickness level, the microprocessor calculates a harvest level.
3. The microprocessor monitors the water level until it reaches the harvest level.

As ice builds on the evaporator the water level in the water pan drops. This is called batch harvesting.

HARVEST CYCLE

1. The hot gas solenoid opens.
2. The microprocessor monitors the proximity switches waiting for the circuit to open.
3. Once all of the proximity switch circuits have opened, the hot gas solenoid closes.
4. The microprocessor monitors the proximity switches to close.
5. Once all the proximity switch circuits close, the harvest cycle terminates.

NOTE: When the pressure inside, the pressure sensor pick up lowers to a predetermined value, the pressure transducer starts the harvest cycle.

DUMP CYCLE

1. The dump cycle can be changed by moving the setting on the dump cycle dip switches.
2. If both switches are off, the machine dumps water after each cycle. This is the factory set point.
3. If switch 1 is on an switch 2 is off, the machine dumps after every third harvest.
4. If switch 1 is off an switch 2 is on, the machine dumps after every seventh harvest.
5. Once the water reaches the minimum level, the dump valve de–energizes and the pump turns off.

FAN CONTROL

1. Fan control operates when the hot gas solenoid is closed.
2. The fan turns off when the condenser temperature is below 88°F.
3. The fan turns on when the condenser temperature is above 100°F.

ADJUSTING BRIDGE THICKNESS

For optimum ice production and maximum cube separation, the ice connecting the individual cubes should be a minimum of 1/8″ (.32cm) thick.

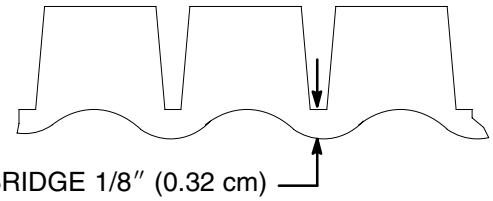


FIG. 7

Should a different thickness of the bridge be desired, it will be required to adjust the ice thickness “POT”, located on the circuit board, as follows:

1. Thinner Bridge – turn the ice thickness “pot” adjustment screw C.W. one full turn. Allow two cycles before determining if additional adjustments are required.
2. Thicker Bridge – turn the ice thickness “pot” adjusting screw C.C.W. one full turn. Allow two cycles before determining if additional adjustments are required.

NOTE: Never judge the thickness of the ice from the first batch of the ice produced – the first cycle is a balance cycle. Always wait for the second cycle before making any adjustments.

TOTAL ICE CAPACITY

Ice capacity of any ice maker is affected by many operating conditions, such as water and air temperature and location factors. Please review the capacity tables in this manual for average 24-hour capacity under various conditions.

NOTE: All printed capacity ratings are ± 10% except 50 HZ units. These products have 12% increase in cycle time and capacity decrease of approximately 17%.

ICE PRODUCTION CHECK

If air cooled, take air temperature at the intake of the condenser, 2″ from the condenser fins, and Incoming water temperature at the outlet of the “fill” valve.*

Cycle time (CT) = freeze time plus harvest time, in minutes and seconds. 1440 divided by CT = number of cycles per 24 hours.

Measure weight of ice from one cycle in pounds and fractions of a pound.

EXAMPLE: Weight/cycle x cycles/day = total production/24 hrs. Compare to the production tables.

* If water cooled, be certain water regulator valve is set to maintain 260 - 271 PSI head pressure, or set condenser outlet temperature to 108°F – 111°F

LED INDICATORS

The LEDs are board circuit indicators. If the LED in the functional board circuit is complete, check component.

Example: Contactor does not energize and LED is “ON”, board circuit is OK. Check contactor, coil, leads, & connections.

Yellow:

- Evaporator switch(s) (proximity)

Green:

- Water dump valve
- Compressor contactor
- Water Pump
- Hot Gas Valve
- Condenser Fan (cycles on & off with fan)
- Fill Valve

Red:

- Error (located on the electrical box front).
- Delay (located on the electrical box front).
- Ice thickness Adjustment.

Refer to flash codes for control and system diagnostics. Add the flash codes before status indicators.

FLASHING CODE FOR SELF DIAGNOSTICS (300’s, 500’s, 600’s, 800’s, 1000’s, and 1200’s)

	Delay LED		*Error LED*
1	High Condenser Temperature Warning	1	High Condenser Temp. Shutdown
4	Low Condenser Temperature Delay	2	Failed Freeze Time Out Shutdown
5	Water Inlet Warning	3	Failed Harvest Shutdown
		5	Failed Water System Shutdown
		6	End of Clean Cycle Shutdown
		8	Open Condenser Thermistor Shutdown

FLASHING CODE FOR SELF DIAGNOSTICS (1400's and 1800's)

	Delay LED		*Error LED*
1	High Condenser Temperature Warning	1	High Condenser Temp. Shutdown
4	Low Condenser Temperature Delay	2	Failed Freeze Time Out Shutdown
5	Water Inlet Warning	3	Failed Harvest Shutdown
		4	Failed Water Temperature Shutdown
		5	Failed Water System Shutdown
		6	End of Clean Cycle Shutdown
		7	Open Water Thermistor Shutdown
		8	Open Condenser Thermistor Shutdown

Status Indicator

Green LED	Condenser Fan
Yellow LED	Left Water Curtain
Green LED	Hot Gas Valve
Green LED	Water Pump
Yellow LED	Right Water Curtain
Green LED	Compressor Contactor
Red LED	Error
Green LED	Dump Valve
Green LED	Fill Valve
Yellow LED	Delay
Red LED	Ice Thickness Adjustment

Curtain Open

	Yellow LED	off	Right evaporator curtain open.
	Yellow LED	off	Left evaporator curtain open.

Pre-Chill Mode

Condenser Fan	Green LED	(on or off)	Condenser fan cycles on and off depending upon condenser temperature.
Compressor	Green LED	(on)	Compressor contactor active-compressor running.
Right Curtain	Yellow LED	(on)	Right evaporator curtain closed.
Left Curtain	Yellow LED	(on)	Left evaporator curtain closed (only if unit has two evaporators).
Fill Valve	Green LED	(on)	Fill valve open.
Dump Valve	Green LED	(on)	Dump valve open.

Ice-Making Mode

	Green LED	(on or off)	Condenser fan cycles on and off depending upon condenser temperature.
	Green LED	(on)	Water pump active.
	Green LED	(on)	Compressor contactor active – compressor running.
	Yellow LED	(on)	Right evaporator curtain closed.
	Yellow LED	(on)	Left evaporator curtain closed (only if unit has two evaporators).

Harvest Mode

Hot Gas	Green LED	(on)	Hot gas valve open.
Compressor	Green LED	(on)	Compressor contactor active-compressor running.
	Yellow LED	(on)	Right evaporator curtain closed. When the ice falls and the curtain opens, the LED will turn off.
	Yellow LED	(on)	Same as above if there is a second (left) evaporator.

HARVEST BUTTON

Manual Harvest

1. At any time after secondary start up, the machine can be put into the harvest cycle by depressing the harvest button.
2. Pressing the harvest button will tell the microprocessor to skip directly to the harvest cycle.
3. Once the harvest cycle completes, the machine continues with normal operations.

Unit Check

1. Like manual harvest, any time after secondary start up the micro processor monitors the harvest button.
2. If the harvest button is depressed and held for 5 seconds, the unit goes into a check mode.
3. All outputs are initially turned off.
4. Then the microprocessor powers each output individually for one second.
5. This continues for 10 minutes or until the power is cycled.

CLEAN BUTTON

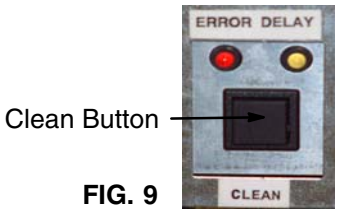


FIG. 9

CLEAN CYCLE

1. The clean cycle can only be initiated during the 45 second hot gas cycle in Secondary Start Up.
2. The clean cycle starts when the CLEAN button is pressed.
3. The hot gas valve opens.
4. The microprocessor monitors the proximity switch circuits, waiting for all circuits to open.
5. Once all circuits have opened, the hot gas valve closes.
6. If all of the proximity switch circuits do not open in 4 minutes, the hot gas valve closes.
7. The fill valve opens.
8. Once the water level reaches the maximum water level, the fill valve closes.
9. The water pump turns on.
10. After 10 minutes the dump valve opens.
11. Once the water reaches the minimum level, the water pump turns off and the dump valve closes.
12. The fill valve opens.
13. Once the water reaches the maximum water level, the fill valve closes.
14. The water pump turns on, and the dump valve opens.
15. Once the water reaches the minimum water level, the water pump turns off and the dump valve closes.
16. The fill valve opens.
17. Once the water reaches the maximum water level, the fill valve closes.
18. The water pump turns on, and the dump valve opens.
19. Once the water reaches the minimum water level, the water pump turns off and the dump valve closes.
20. All outputs turn off.
21. The ERROR LED flashes 6 times at 4 second intervals.
22. The machine will not run until the power is cycled off and back on.

MAINTENANCE

SEMI-ANNUAL MAINTENANCE	
1.	GENERAL ICE MACHINE INSPECTION
2.	CLEANING THE EXTERIOR
3.	CLEANING THE CONDENSER – AIR-COOLED WATER-COOLED
4.	INTERIOR CLEANING – CLEANING PROCEDURES SANITIZING PROCEDURES

GENERAL ICE MACHINE INSPECTION

- Check all water fittings and tubes for leaks. Also, make sure the refrigeration tubing is not rubbing or vibrating against other tubing panels, etc.
- Do not stack anything (boxes, etc.) on or around the ice machine.
- Do not cover the ice machine while it is operating. There must be adequate air flow through and around the ice machine to ensure long component life and adequate ice production.

CLEANING THE EXTERIOR

1. Clean the area around the ice machine as often as necessary to maintain cleanliness and efficient operation.
2. Sponge dust and dirt off the outside of the ice machine with mild soap and water. Wipe dry with a soft clean cloth.

WARNING: Stainless steel panels should be cleaned with mild soap or a commercial stainless steel cleaner. Do not use cleaners containing bleaching agents: they usually contain chlorine which stains stainless steel. Heavy stains should be removed with stainless steel wool. Never use plain steel wool or abrasive pads because they will scratch the panel and cause rusting.

CLEANING THE CONDENSER

CAUTION: Condenser fins are sharp. Use care when cleaning them.

Disconnect electric power to the ice machine at the electric service switch box before cleaning condenser!

Air–Cooled Condenser

A dirty condenser restricts airflow which results in excessively high operating temperatures. High operating temperatures reduce ice production and shorten component life. Clean the condenser at least every six months.

CAUTION: Condenser fins are sharp. Use care when cleaning them.

1. Clean the outside of the condenser with a soft brush or vacuum with a brush attachment. Brush or wash condenser from top to bottom, not from side to side. Be careful not to bend the fins. Shine a flashlight through the condenser to check for dirt between the fins.
2. If further cleaning is required, blow compressed air through the condenser from the inside. Take care not to bend the fan blades. Shine a flashlight through the condenser to check that all the dirt is removed.

   Any bent condenser fins must be straightened with a fin comb. Contact your local service agent to do this service.

Water-Cooled Condenser (and regulating valve)

The water-cooled condenser and water regulating valve may require cleaning due to scale build-up.

Low ice production, high water consumption, and high operating temperatures and pressures all may be symptoms of restrictions in the condenser water circuit.

The cleaning procedures require special pumps and cleaning solutions and, therefore, should be performed by qualified maintenance or service personnel.

CLEANING THE INTERIOR

Approved ice machine cleaners by brand names:

- Calgon Nickel Safe (green color only)

NOTE: Failure to use approved products will void the warranty.

CAUTION: Ice machine cleaners are acidic-based chemicals. Before beginning any cleaning of the cuber, the ice in the storage bin or dispenser must be removed.

WARNING: When using any chemical, rubber gloves and eye protection should be worn.

WARNING: Do not remove the small clear tube from the fitting located in the water pan. Doing so will result in erratic behavior of the ice machine.

Cleaning Procedure if there is Ice on the Evaporator Plate.

1. Turn the power switch on.
2. Press the clean button to start a 4 minute defrost cycle (button is located on the front of the control panel).
3. After harvest cycle, add ice machine cleaner and follow cleaning procedure.

Use ice machine cleaner on a coarse-surface cloth material (such as terry cloth) and wipe down the inside wall of the evaporator area, the water pan, the water curtain and the plastic water deflector. If the water distributor tube has heavy scale build-up, remove and soak it in full-strength nickel safe ice machine cleaner (or exchange the tube and clean the scaled tube at a later date). *See figures and #6 and #7.

Cleaning the Water System and Evaporator

1. Turn the power switch to “OFF”.
2. Remove all ice from the storage bin.
3. Remove the water curtain(s), pour 1/2 oz. of ice machine cleaner down the top of the evaporator. The cleaner will drain into the water pan.
4. Remove the water distributor tube (refer to fig. 10), disassemble water distributor tube (refer to fig. 11), and clean with the brush and “Calgon Nickel Safe” ice machine cleaner.

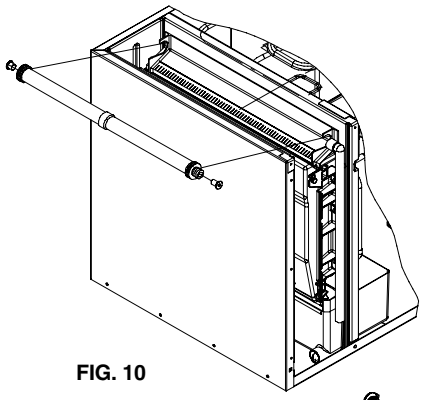


FIG. 10

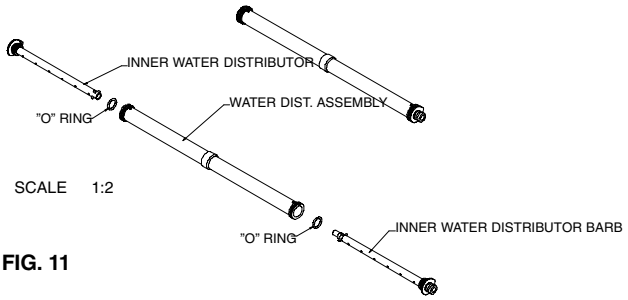


FIG. 11

5. Return the water curtain(s) to their proper operating positions.
6. Add 5 oz. for the 300's, 8 oz. for the 500's, 600's, and 800's, 12 oz. for the Dual Evaporator, and 16 oz. for the Quad of "Calgon Nickel Safe" ice machine cleaner directly into the water pan (green only).
7. Turn the power switch to "ON" , allow the compressor to start, and depress the clean button two times on the front of the electrical box.
8. The unit will run through a fifteen (15) minute cleaning cycle. This includes 3 rinse cycles.
9. Once the cleaning cycle finishes, the error LED will flash 6 times.
10. When the clean cycle is complete, turn the power switch to "OFF" for five (5) seconds, then to "ON". The unit will return to normal operating mode. Discard the first batch of ice produced.

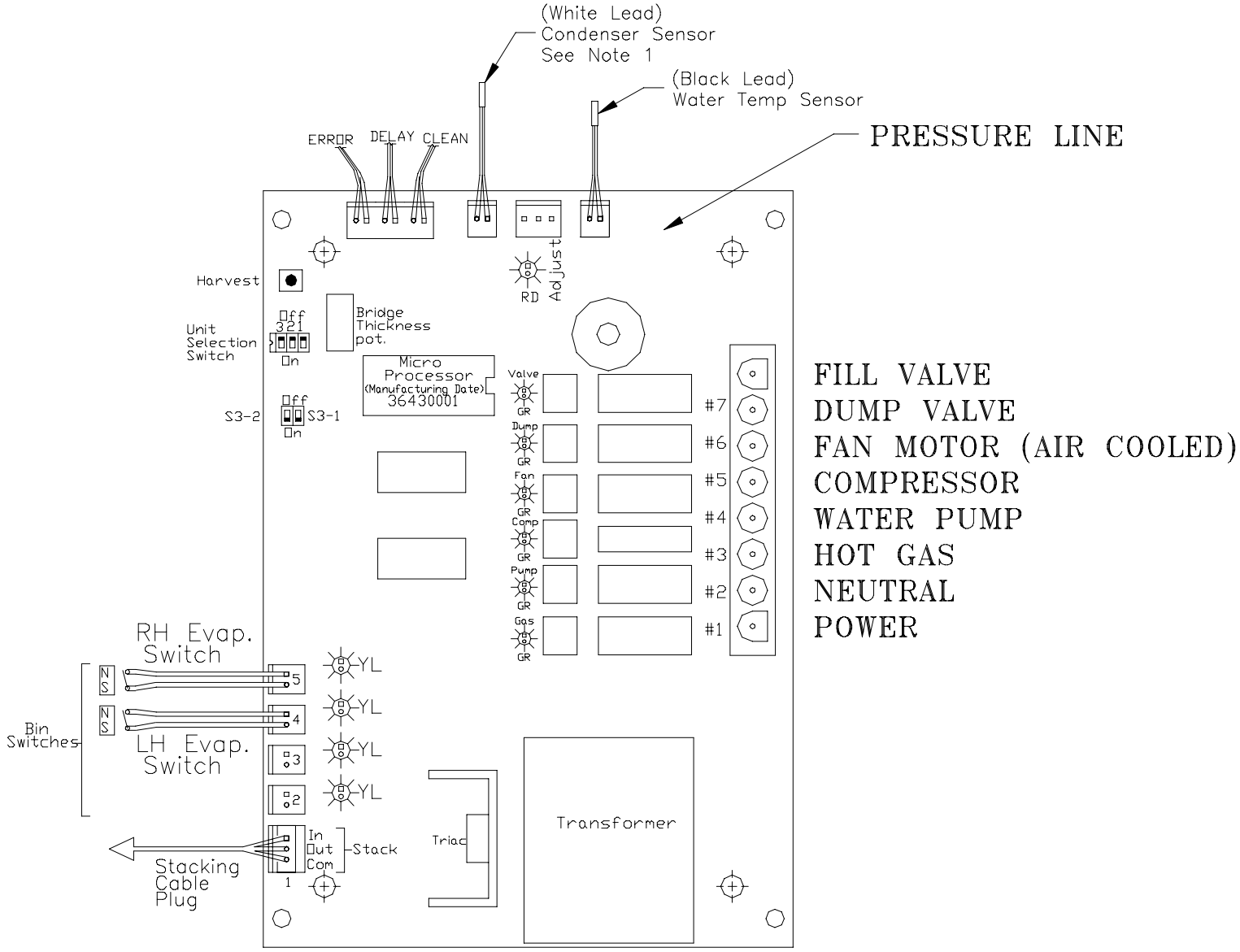
NOTE: Please Take Note of the Following:

- Ice machines should only be cleaned when needed, not by a timed schedule of every 60 days, etc.
- Should your ice machine require cleaning more than twice a year, consult your distributor or dealer about proper water treatment.

Sanitizing the Water System and the Evaporator

NOTE: To be performed only after cleaning the ice machine:

1. Turn the power switch to "OFF".
2. Add 1/4 ounce (7.08 g) sodium hypochlorite solution (common liquid laundry bleach) to the water pan. You may also use a commercial sanitizer such as Calgon Ice Machine Sanitizer following the directions on the product label.
3. Turn the Cuber power switch "ON" allowing the compressor to start. Depress the clean button two times on the control board. The unit will run through a 15 minute sanitizing cycle.
4. Once the sanitizing cycle is complete, the error LED will flash 6 times. Turn the power switch to "OFF" for 5 seconds and then turn to "ON". Discard the first batch of ice produced.
5. To sanitize the bin and other surface areas, use 1 ounce of liquid bleach per gallon of water and wipe all areas with the solution. Or use a commercial sanitizer.
6. Cleaning and sanitizing are now complete. Cuber may be returned to normal service.



NOTE 1: CONDENSER SENSOR USED ONLY ON A/C UNITS.
1.8K ohm RESISTER USED ONLY ON W/C & R/C UNITS.

BEFORE CALLING FOR SERVICE

If a problem arises during the operation of your ice machine, follow the checklist below before calling for service.

CHECKLIST

Problem	Probable Cause	Remedy
ICE MACHINE DOES NOT OPERATE	A. No electrical power to ice machine.	A. Replace fuse, reset circuit breaker, turn on main switch.
	B. Tripped high pressure cutout.	B. Reset high pressure cut-out.
	C. ON switch set improperly.	C. Set switch at ON.
	D. Water curtain stuck open.	D. Water curtain must swing freely.
ICE MACHINE STOPS AND CAN BE RESTARTED BY TURNING POWER SWITCH OFF THEN BACK ON AGAIN	A. Safety limit feature stopping ice machine.	A. Refer to safety limit feature.
ICE MACHINE DOES NOT RELEASE ICE OR IS SLOW TO HARVEST	A. Ice machine evaporator dirty.	A. Clean the evaporator, the water system and sanitize ice machine.
	B. Ice machine not level.	B. Level ice machine.
	C. Air–cooled models: low ambient.	C. Minimum ambient is 50°F .
	D. Water regulating valve leaking during harvest mode (water–cooled ice machines).	D. Refer to water–cooled condenser.
POOR QUALITY ICE. (ICE SOFT OR NOT CLEAR)	A. Quality of incoming water.	A. Contact qualified service company to test quality of water and make appropriate filter recommendations.
	B. Water filtration element needs to be changed.	B. Replace filter.
	C. Ice machine dirty.	C. Clean and sanitize ice machine, pages 5 & 6.
	D. Water dump valve not working.	D. Disassemble and clean the water dump valve.
	E. Water softener working improperly (if installed).	E. Repair water softener.

SAFETY LIMIT FEATURE

In addition to standard safety controls such as the high pressure cut-out, your ice machine features built-in safety limits that stop the ice machine if conditions exist that may result in a major component failure.

Before calling for service, restart the ice machine using the following procedures:

1. Turn power switch off and then back to “ON” position. If the safety limit feature has stopped the ice machine, it will restart after a short delay. Proceed to Step 2, but if the ice machine does not restart, refer to “Ice Machine Does Not Operate” in the problem checklist.

2. Let the ice machine operate to determine if the condition recurs...
   a. If the ice machine stops again, the condition recurred; call for service.
   b. If the ice machine continues to run, the condition corrected itself; let the machine run.

WARRANTY

IMI Cornelius Inc. warrants that all equipment and parts are free from defects in material and workmanship under normal use and service. For a copy of the warranty applicable to your Cornelius product, in your country, please write, fax or telephone the IMI Cornelius office nearest you (www.cornelius.com). Please provide the equipment model number, serial number and the date of purchase.

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